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The Greater Portland Plan of Edward H. Bennett

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Edited by Marshall N. Dana

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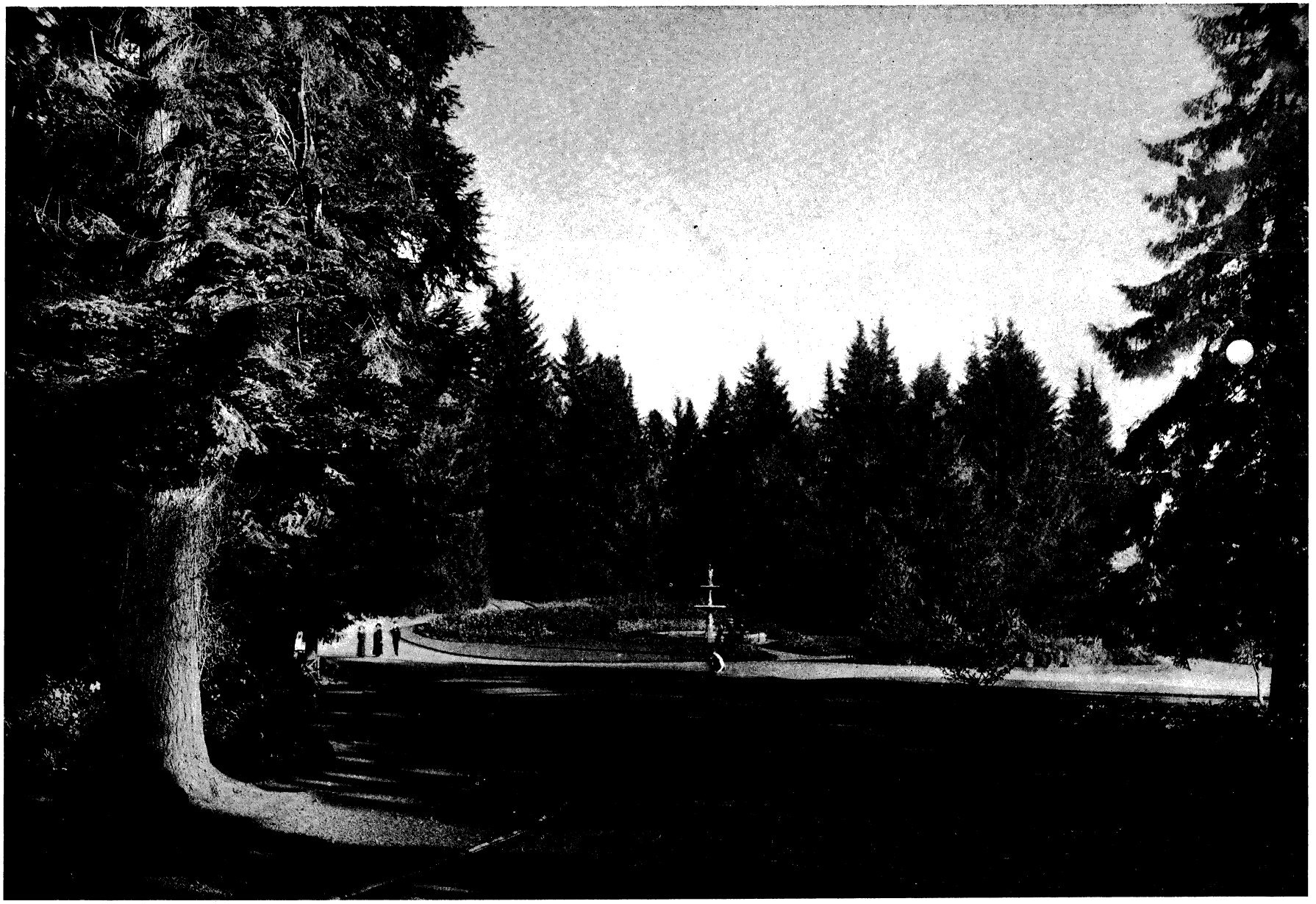

Vista in Washington (City) Park, Portland

Foreword

THIS preliminary report on the Greater Portland Plan does not assume to be complete. In it are set forth the main ideas of Edward H. Bennett, the noted municipal architect, who is the author of the plan. Where possible, Mr. Bennett's phraseology has been used and this is true with respect to nearly all points on which differences may arise. Where brevity and limitations of space have demanded, descriptions have been shortened and more direct expressions employed. Close study of this preliminary report and the final report to be published is warmly recommended to the people of Portland. Upon the quality of their citizenship in its energy, foresight and intelligence rests, in the last analysis, such building of the Greater City as will fit the magnificent opportunity.

Respectfully submitted to his honor, Mayor A. G. Rushlight, by whom the subscribed City Plan committee was appointed, and to the Common Council of the City of Portland by whom the appropriation for this report was made.

MARSHALL N. DANA, Chairman
ALBERT G. CLARK
GEORGE H. HOWELL
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Telephoto View of Mt. Hood and a portion of the City of Portland, taken from Washington (City) Park

The Greater Portland Plan

THE Greater Portland Plan is a guide for the further building of the City. Portland will grow to be a City of 2,000,000 population—the Plan indicates the equipment which the City must continuously acquire by way of street circulation, municipal centers, parks and boulevards, rail and water terminals, to serve convenience, utility and beauty, in progressive stages of this expected growth. The ideal is the *organic city* with its parts and activities closely related and well defined, but not conflicting; wisely and economically builded, not a cluster of villages, each with its center, and with boundaries accidentally merged.

Extraordinary expenditures are not proposed. The units of improvement incident to the normal growth of the city are to be adapted to the plan. Work on the first units must begin now; may be continued indefinitely. The cost will be measurably less than in haphazard building; the result will be the Greater Portland, placed where the great rivers of the West flow together, at the head of deep sea navigation, the unquestioned social and commercial metropolis of a wide and fertile domain, famed the world around for form and beauty, dominant and proud in prestige and power.

The building of the Greater City is a task to claim the best of citizenship, even as the greater City itself will result in a higher citizenship. It militates alike against the selfish interest and narrow view. It demands vision and persistence, love of the beautiful and common sense.

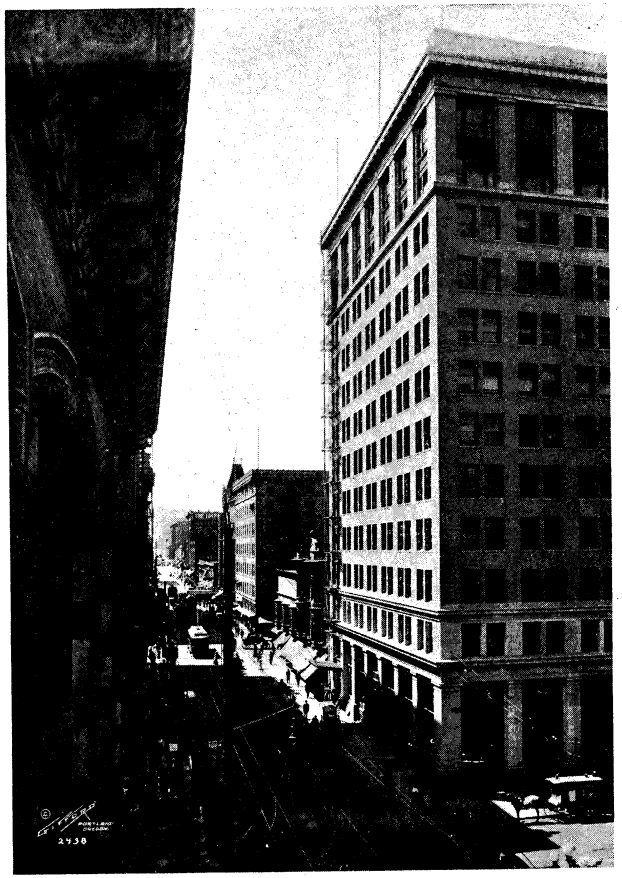
The expression "organic city" is advisedly used. The congested business center is called the *"heart"*, the streets are traffic *arteries*, the parks are the breathing spaces or *lungs*. Portland is built on the two sides of the greatest traffic artery of all, the Willamette River. To uniformly build the city means that while this highway shall be utilized for traffic both on its surface and banks, the business sections of the West and East sides shall be bridged so that there shall be but one greater business center of balanced expansion.

Should Portland grow no greater than today there would be need of a plan. The City's first builders had no thought of its increasing from a scattered hamlet to its present estimated population of 250,000 (207,214, 1910 census) or that it would more than double its population for each ten years. Already the streets are overburdened with their traffic because of narrowness, frequent intersections, and awkward circulation. The harbor is outgrown, the limitations of park area are being seriously felt. Thus far Portland has been content to build as building was forced by growth. No truly great thing in municipal composition has been attempted. No great accidents or calamities have marred advance. London suffered from fire, San Francisco from earthquake, before principles of correct municipal construction were emphasized. The plan for Portland results from the powerful impulse of a certainty of growth that would be a calamity were not preparation made for it.

And, since it is established that a plan for Portland is very vitally essential, it should not be made too small or limited to provide for the probable maximum of increase. The late Daniel H. Burnham, famous architect of cities, said:

"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram, once recorded, will never die, but long after we are gone will be a living thing, asserting itself with evergrowing insistency. Remember that our sons and grandsons are going to do things that will stagger us. Let your watchword be order and your beacon beauty."

The City without a plan pays greater expansion costs. In 25 years Chicago spent $225,000,000 of which it is estimated 40 per cent was to no purpose because street paving, bridges, public buildings, and other things incident to a city's growth were torn out and replaced



Washington Street, Portland

and torn out again for lack of system anticipating growth. The experience of any other American City might be likewise used in illustration.

The City with a plan prospers. Paris, in the time of Louis Napoleon, under direction of Baron Haussman spent $284,000,000 in systematic improvements, but in Paris tourists leave annually a sum estimated at between $400,000,000 and $500,000,000. Other cities that have been builded with the idea of utility and beauty skilfully blended are benefiting commensurately.

In this country today are some 70 cities engaged in plans for future growth. Competition for place and prestige and pride of citizenship are powerful factors in the movement for better built municipalities. The accomplishment of the plan for Portland demands a persistent educational effort that will acquaint all citizens with both the utilitarian and aesthetic elements of the work, that will harmonize and unify public, public service, and private improvements and that will automatically produce higher standards of community living. Without a steadily elevated plane of citizenship and the active, intelligent co-operation of the people, the plan would be useless and the city could never be great or greatly desirable.

Men make their surroundings pictures of their minds. If they are disorderly in effort or plan they will seek or cause similar environment. If they are orderly in the doing of things, if they love and appreciate the beautiful and artistic, their surroundings will be made the expression of the inner ideal. And in the same way cities acquire a sort of composite personality, doing and accomplishing in accord with municipal standards and ideals. The Portland to be will reflect the quality of her citizenship both now and for the future. Not only is the city made a more desirable place in the present because of a plan, but generations to come will be immeasurably benefited and obligated to the public-spirited, well directed, energetically performed service of today.

The merchant who carefully plans his store so that in the aisles there may be most direct circulatiom, so that on the tables goods may be most attractively displayed, so that in the warerooms surplus stocks may be most quickly available, is commended, and the most successful business man is he who has the most orderly and best directed "plant." The same principle may be applied to the city, except that the opportunity of building and maintaining a community where there shall be pride of citizenship and constant attractiveness is laid individually and collectively upon the citizens.

General Lines of Growth

Portland's position at the head of deep sea navigation and as sole distributing center for a great and potentially productive territory connected with the city by water grade transportation is basis for the belief that this city will attain great size.

The increase in population will intensify all activities, more definitely define the areas of municipal enterprise, and greatly widen the city limits.

It is to be expected that the great manufacturing area of the future will be North of the bridges in close proximity to rail and water shipping, both on the banks of the Columbia and the Willamette. The business district is already well defined, but it will expand as shown by illustration in a constantly widening circle. On the West business will be checked by the hills, as business seeks the level and rarely climbs

the elevations. On the East side a very large expansion of business area may be expected and the construction of bridges and, ultimately, tubes under the river, will solve the problem of unifying this growth. The removal of the industries now South of the bridges will result in less frequent opening of the draws and consequent economy of time. At the same time this gathering of the industries in close proximity to rail and water transportation and on less expensive property will constitute a great manufacturing advantage.

It seems certain that some portion of this business—say the wholesale and the light industries—will always remain on the banks of the Willamette River, North of the center of the City, and a harbor for the economical handling of freight should be established at this point. The territory here, however, is limited and undoubtedly a deep water harbor North of St. Johns is inevitable. Here all the railway lines may meet on easy grades without passing through the heart of the City, and great clearing yards may be established; the interchange between rail and water transportation will be perfect and around this center will grow up a great industrial area.

The business center of the city, that is, the part where are located the office buildings, hotels and retail stores of the finer class is fixed as to general location. It will, however, expand back to a point on the West side where the grades become too steep for the economical operation of business; on the East side, already begun, development in a proportionate degree may be expected.

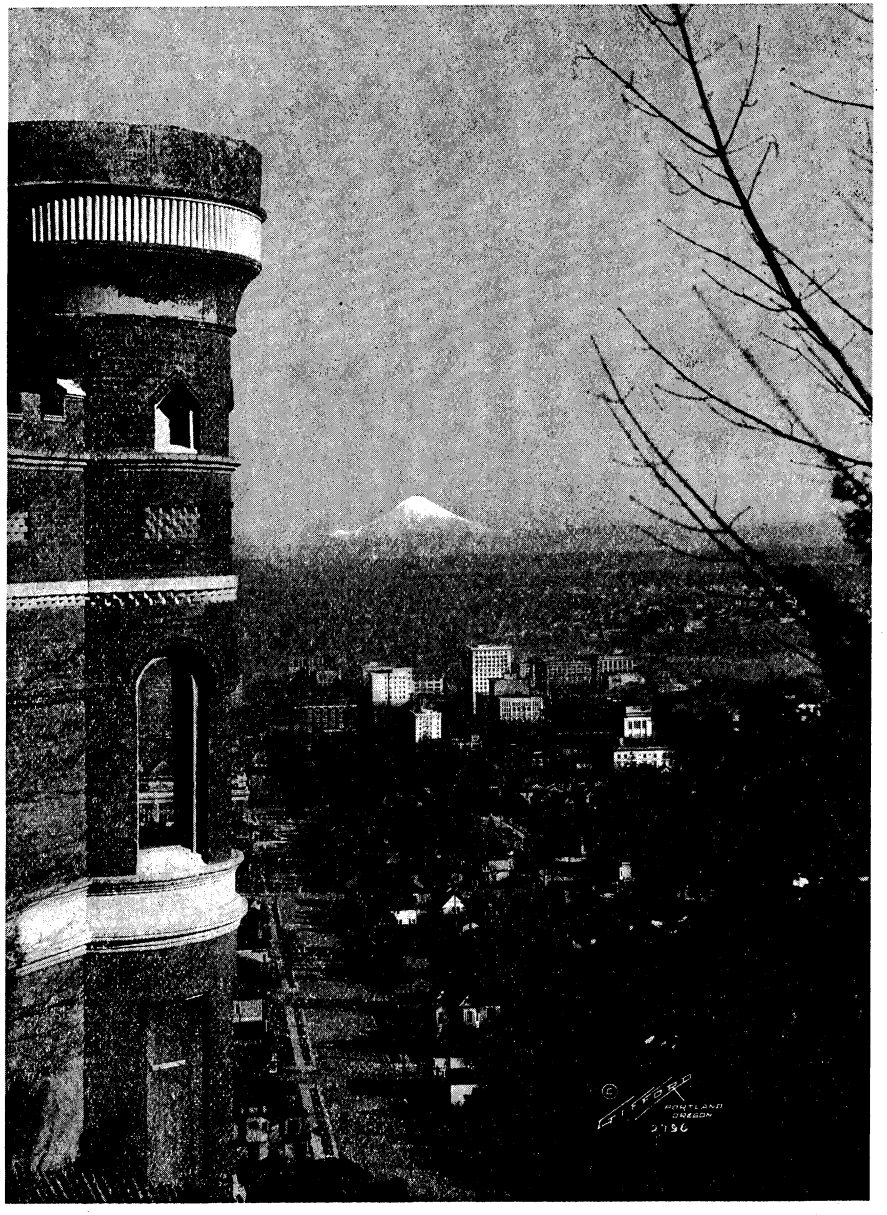
The business development of the East Side is not likely to supersede that of the West side.

The plan is to make centers on both the East and the West sides and connect them perfectly.

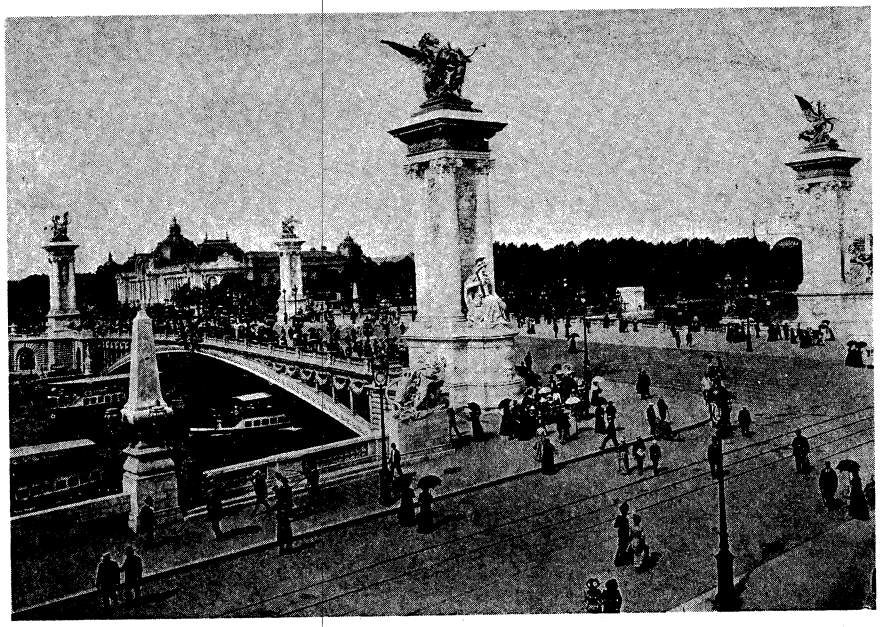
Where the People Will Live—Future Boundaries

Extensive centers of population are already developing to the East and Southeast, also approaching the manufacturing and industrial area on the Columbia River.

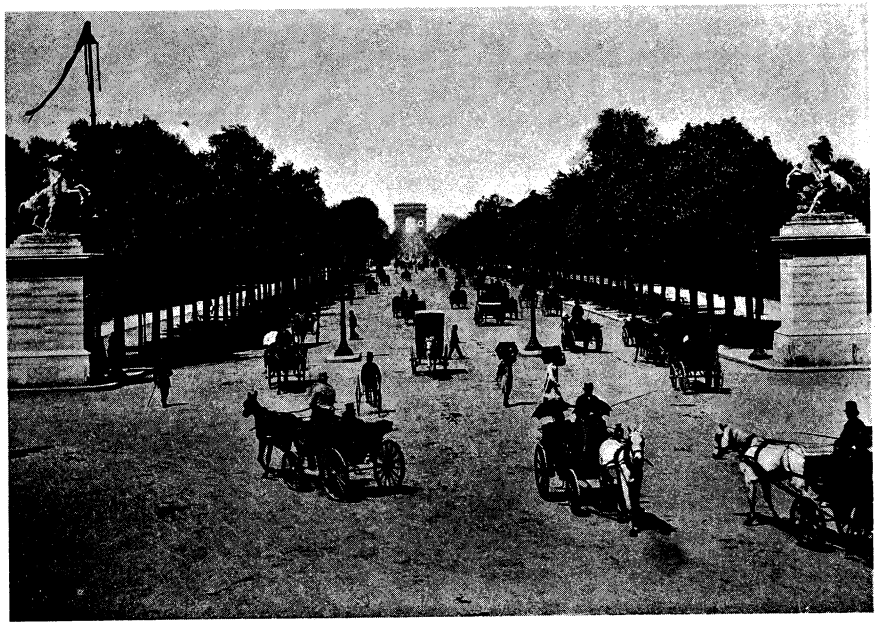
But with a population of 2,000,000 the city will include all the population of all the centers surrounding it within a radius of at least twenty miles. For this reason careful study of the great suburban highways with especial attention to their manner of entering the City



Portland, Looking North Toward Mt. St. Helens



Foreign Bridge



European Boulevard

must be made, because of their pronounced influence on the center of the City itself.

The present City limits, now about 54 square miles, must be extended to include probably 150 square miles to accommodate the future population, judging by the rate of growth in other cities. It will be seen by the diagram that the expansion will be largely to the East and South of the present City.

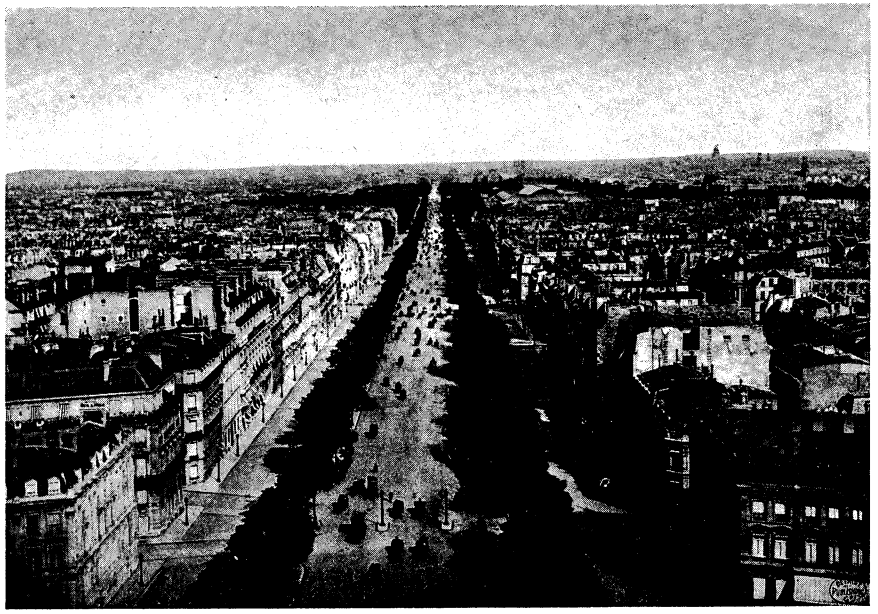
Two possible future boundaries are shown, one within the County lines, the other passing beyond to include Milwaukie and the bend of the river to the South.

The great residence district, though now seemingly indefinite, will extend South of the center in a wide area over the river and upon the hills flanking the City to the West. For a mile or two North and South these hills will be quickly populated.

The river should be improved to meet the requirements of these developments. In the center of the City it must be improved with docks for smaller boats and warehouses, over which may run boulevards, connecting the bridges built and to be built, and extending as far North as may be feasible. Improvements South of the center should be of a more parklike nature. Industries having withdrawn, the banks of the river should be publicly owned and developed as much as possible both as to sightliness and utility. The forests in many places should be preserved and the banks of the river planted. The whole system should be connected across the stream, as shown in the plan, by a number of bridges.

Quick Transit

Provision for swift and immediate transit between the City, the great manufacturing and residence districts is imperative, and this will be partly accomplished by the construction of a suspension bridge or bridges, and a tunnel for the transportation of freight, for district to the North, and by additional bridges for the East and South.



Famous Paris Street—Champs Elysees

Beautified Traffic Center

The growth of the City tends more and more to the segregation of the elements of its life. This is furthered by the establishing of zones which can only be laid down arbitrarily with the aid of special legislation.

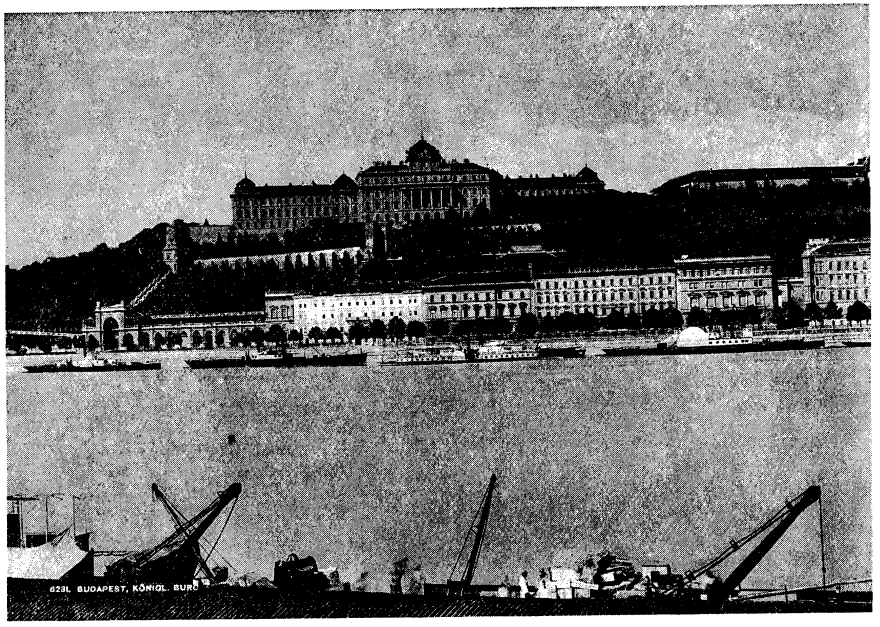
The advantages of such a program are to be very definitely pointed out. Proof is found in the benefits arising from the zone system employed in most of the German cities today, and, very notable, Frankfort.

The Importance Of Traffic Circulation

The important streets within a city are largely continuances of the roads outside. For many reasons good traffic circulation from without into the City is desirable. The illustration shows how existing roads may in many instances be connected to complete the scheme of highways that shall give the most facile ingress and egress for marketing and for travel from one point to another. It is important that the best possible connection be kept between the city and suburban towns. As the larger city expands, it will inevitably include one after another of these within its boundaries and the scheme of street circulation will then be of the most vital importance.

Streets as arteries are channels for the life blood of the City—its traffic. As well expect a man of poor circulation to be full blooded and vigorous as for a city of ill arranged, narrow streets to maintain healthful traffic circulation.

The Greater Portland Plan proposes the connecting of suburban highways in such a way that they will be properly related to each other and to the main thoroughfares of the city. A scheme of street circulation is submitted which will connect the circumference of the city with its centers by radial traffic arteries broadened to receive the flow from parallel streets. To prevent congestion in East or West side centers a series of traffic circuits about these are proposed. Radial arteries must discharge their traffic into these traffic circuits or into an axial artery which will directly connect important thoroughfares.



Water Front, Budapest

This axial artery now exists in incomplete form in Burnside Street, and the coherence of the general street circulation scheme is dependent upon its widening to receive the traffic poured into it.

It has been the aim to create the Grand Cross of intersecting axials by means of the intersections of Burnside Street, the main axial thoroughfare with Union Avenue on the East side and the Park Blocks on the West side. It is a feature indispensable to perfect circulation, and to it should be related all the important functions of city life—transportation and administration in particular. Such a plan is exemplified very conclusively in the capitals of Europe and is being slowly developed in the cities of this country.

The creation of circuits will serve to distribute the traffic about a center that has become, or is about to become congested. Their value is great in handling traffic that passes from one side of the city to another and does not seek the center. Thus only necessary traffic is admitted to the congested centers, and that which is directed from one side of the city to another is more rapidly handled, serving in this way a double purpose.

Traffic Circuits

The principle of traffic circuits is extended throughout the Plan as topography and existing conditions permit, the last being approximately the perimeter of the city, beyond which they become county roads which connect the townships surrounding the city.

The principle of axial and radial arteries combined with traffic circuits to carry the life and business of the city should be kept clearly in mind in any study of the plan. A spider's web serves well to illustrate the principle of radial arteries and traffic circuits.

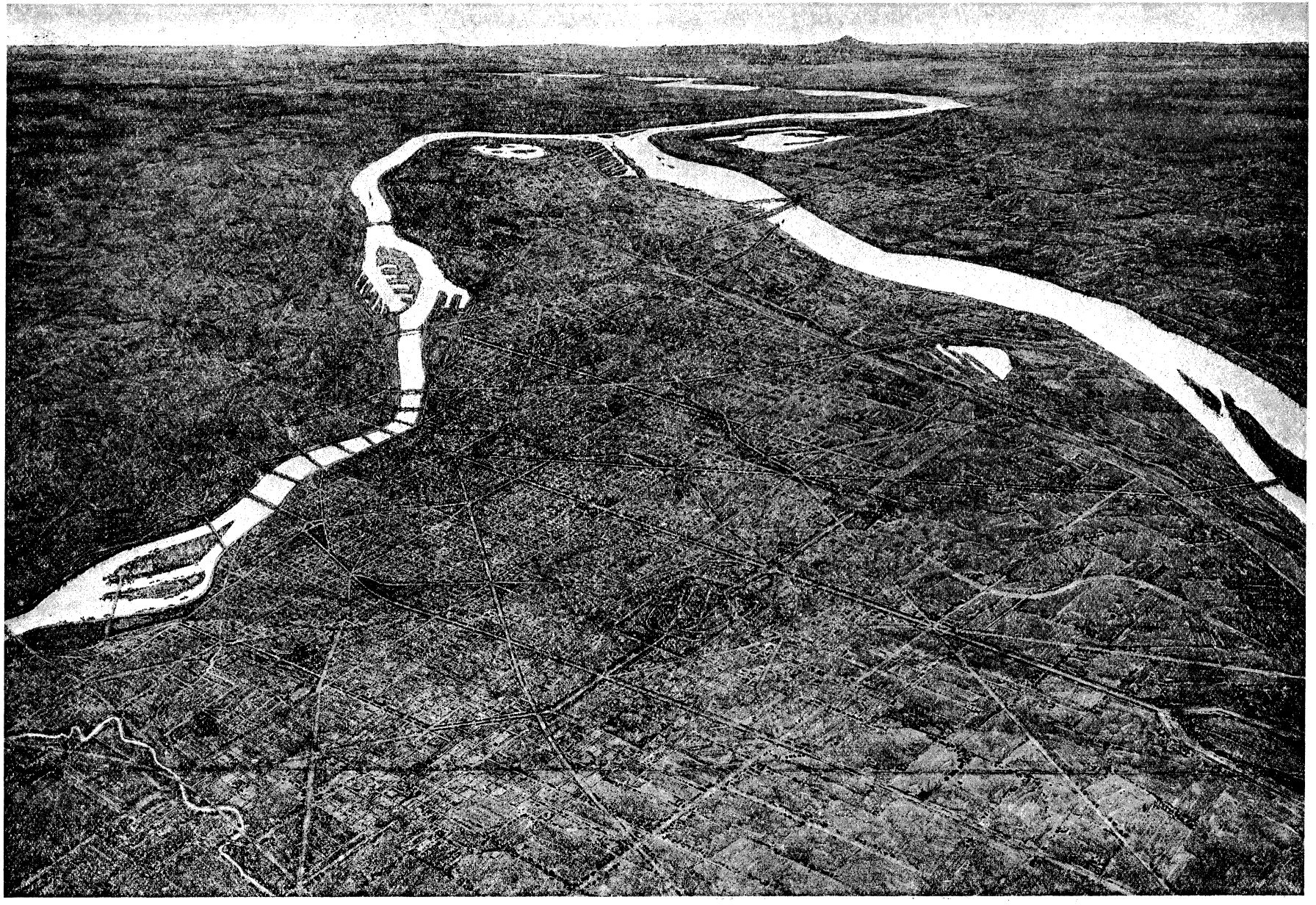
The circuit arteries though essential to relief of congestion in the administrative centers are not arbitrarily laid down. The innermost and most important is that enclosing the business center on both sides of the river.

It is composed of the Park Blocks, Madison Street, Hawthorne Avenue, East Twelfth Street, Halsey Street and the Broadway Bridge. It is bisected by the main axial line or Burnside Street, sub-dividing the circuit into two minor circuits. It is also bisected by the drives proposed to be made on each side of the river the docks and on a level with the bridges.

When widened, Union Avenue may serve as the Eastern line and intermediate lines crossing the various bridges as relief. The growth and intensifying of the center will prove the necessity for the development of this center on a fine scale.

There is need for the immediate relief of the business center by the development of the Park Blocks, Burnside Street, Madison Street, and the West river road. The retail district, already established is served by streets 60 feet in width running East and West and 80 feet in width running North and South. The traffic is poured in from the East Side into the streets least able to carry it and at only a few points.

This condition may be remedied by the construction of more bridges, but the principle of the circuit boulevard or circuit artery should be applied, and the aim of the plan has been to carry the future population from the Northwest and Southwest respectively in such a



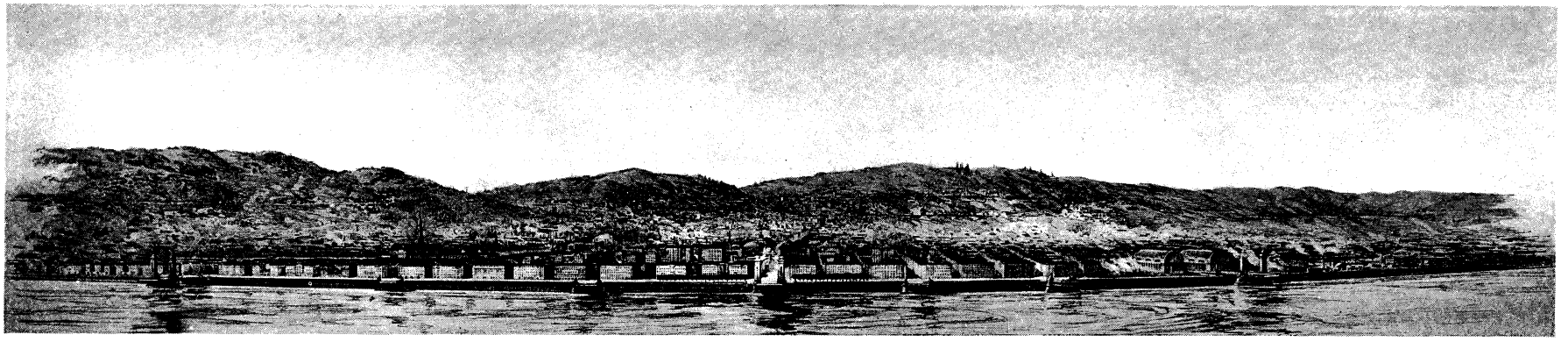
Bird's-eye View of Portland, showing Proposed Improvements and Traffic Arteries

way that the stream of traffic may be poured into the wider streets running North and South, thus greatly relieving the other streets. With this end in view it is proposed to widen Burnside Street, make of it, perhaps the dividing line between the retail and the wholesale district and to carry it East and West as the great axis of the City, and on the South to widen Madison which with Burnside and the Park Blocks completed will form the circuit enclosing the intense business center. The East side population to the North would be carried as proposed by means of the Broadway bridge and approaches. Near Madison Street will be the civic center, slightly distant from the intense business center as befits, and made as easily accessible as possible; although not in the center of population it is thought to be the best location for it.

Other arteries running from the center due North and Southeast will complete the system of circulation around the center. A similar scheme has been applied to the East side, new arteries running from St. Johns on the North to Ross Island on the South, and another great artery divides the peninsula between the Willamette and Columbia rivers. The former runs through the lowlands and the second over the highlands. They are both of the greatest importance. It should be borne in mind that the proposed arteries are few in number, and use is made of all the good lines of communication.

Diagonal Streets

The diagonal streets or radial traffic arteries complete the system of circulation. For the most part they are continuations of existing country roads leading in from a great distance, either across the plains, through the valleys or over the hills; their origin is shown on the general diagram, and the main country roads to be developed are indicated.



Proposed Elevation Water front, Looking Toward Hills on West Side

The development of radials has been schemed in reference to the expected traffic needs of the City and its environs.

Referring to other American cities, we find that New York, Chicago, Philadelphia, and Boston carry approximately 2,000,000, 800,000 400,000 and 350,000 people daily to and from the center, and these cities have linear measure of streets more or less directly tributary to to the center of 865, 212, 324, and 209 miles respectively.

The streets of Portland carry at present about 36,000 people daily, and there are about 115 miles of streets tributary to the center (all within a five-mile radius of the center). This condition is seemingly very favorable to Portland, but the mileage for the most part is based on the rectangular system of streets, the circulation in which is very imperfect.

The future traffic demands on both sides of the river should be met, first, by the development of existing diagonal streets, canyon roads, and their complete articulation with other streets of the center; second, by the creation of new diagonal arteries to supplement those existing.

The hypothenuse of a triangle is shorter than the sum of the two sides and these diagonal arteries will mean a great economy of time and effort.

The development of existing and proposed diagonals, together with the rectangular streets shown on the plan will add an approximate 100 miles of important arteries tributary to the center of the City, which added to the present 115 miles gives a total of 215 miles.

In addition to these important arteries, the usefulness of approximately 90 miles of minor streets is also developed by the following proposed arteries:

1. Diagonal street Northeast from the Broadway bridge.
2. Diagonal street extending to Halsey and Twelfth Streets from Dawson Street.
3. The Foster Road extended to East Burnside and connecting with minor roads, and other diagonals running Southeast.
4. The diagonal running Northwest from Burnside and Park Streets.
5. The extension of Sandy Road to East Burnside.

A total of 300 linear miles of streets importantly related to radials from the center of the city to its outskirts will shorten time and distance and give Portland an advantage not enjoyed by any large American City today.

The ratio between the public streets and the general area of the City is also an important part of the Plan. The City may be divided into zones—central, middle and outer.

The central zone has about 45 per cent street area.

The middle zone has about 35 to 40 per cent, and the outer zone is largely undeveloped.

Had the original scheme of streets involved the creation of main carrying arteries, a smaller street area for the central zone would have at the same time been more efficient. Congestion now results not

from lack of street area in the central zone, but because of their narrrowness and frequent crossings. Another criticism of the street arrangement in the middle zone is the orientation of streets; streets running North and South are admittedly healthy, but those running East and West are known to be the contrary. Economy and beauty will both require serious consideration of these points in the replatting of the outer, middle and center zones or areas to be added to the City. In Paris and Vienna, and more recently, in German cities this scheme is being carried out with success. It should at least be the aim to control the main arteries in new additions, irrespective of private ownership, the liberty being allowed in regard to the arrangement in detail of the streets in these additions. (Note the recent development abroad of the Garden City and the Garden Home, notably in England, has a distinct bearing on the street system in general. This is treated elsewhere.) It is important to note that the proposed arterial system, in particular the radial lines, are so schemed as to connect any portion of the surrounding suburbs directly with the center. They are interdependent.

The radial arteries and residence or Garden Home districts therefore, are interdependent and care should be taken in creating the latter to provide the former. In this way the great thoroughfares will be main streets of the Garden Homes and either bisect them or enclose them.

There should be a marked difference between the great traffic arteries and the lesser ones, otherwise the greater proportion of street area may be wasted.

Accessibility is always to be given careful consideration especially in the business center. It is not too well to argue that if Burnside Street is widened and Washington Street is not, all the benefits will accrue to Burnside and Washington will suffer. The widening of Burnside promotes greater accessibility in the case of the business of every other nearby street and the relation of axial traffic arteries to others is a feeder or distributor of traffic, as well as receiver.

The additional arteries which have been proposed should be made of the greatest possible width, not only to bear heavy traffic, but to be susceptible of varied and interesting treatment.

Boulevards

Boulevards, or streets on which heavy traffic is eliminated, must be limited in number. The Willamette, Portland and Columbia Boulevards, Vancouver Avenue and Foster Road, all varied in direction should be widened, planted and developed to the utmost, and reserved for lighter and pleasure traffic.

Willamette Boulevard is shown extended into the center; it skirts the bluff and affords fine views to the North and South and toward the center of the City. Vancouver Avenue is already a good road; at Portland Boulevard it drops North and the outlook is very fine. Foster Road also runs along an elevation, and if protected on the South side will give fine outlooks to the South. Portland Boulevard also comes into the Willamette Boulevard at a magnificent viewpoint which should be preserved.

Willamette Boulevard and its extensions North through St. Johns may be made to connect with Columbia Boulevard. A road already exists through Woodlawn and may be developed into a highway of great value.

Columbia Boulevard encircling the City to the Northeast has magnificent possibilities as a highway; the views, especially to the Northeast, are very fine. Mt. St. Helens is plainly visible and Mt. Hood comes into view directly on the axis of the boulevard in several places. It has been the purpose whenever possible to permit unobstructed views of the mountains.

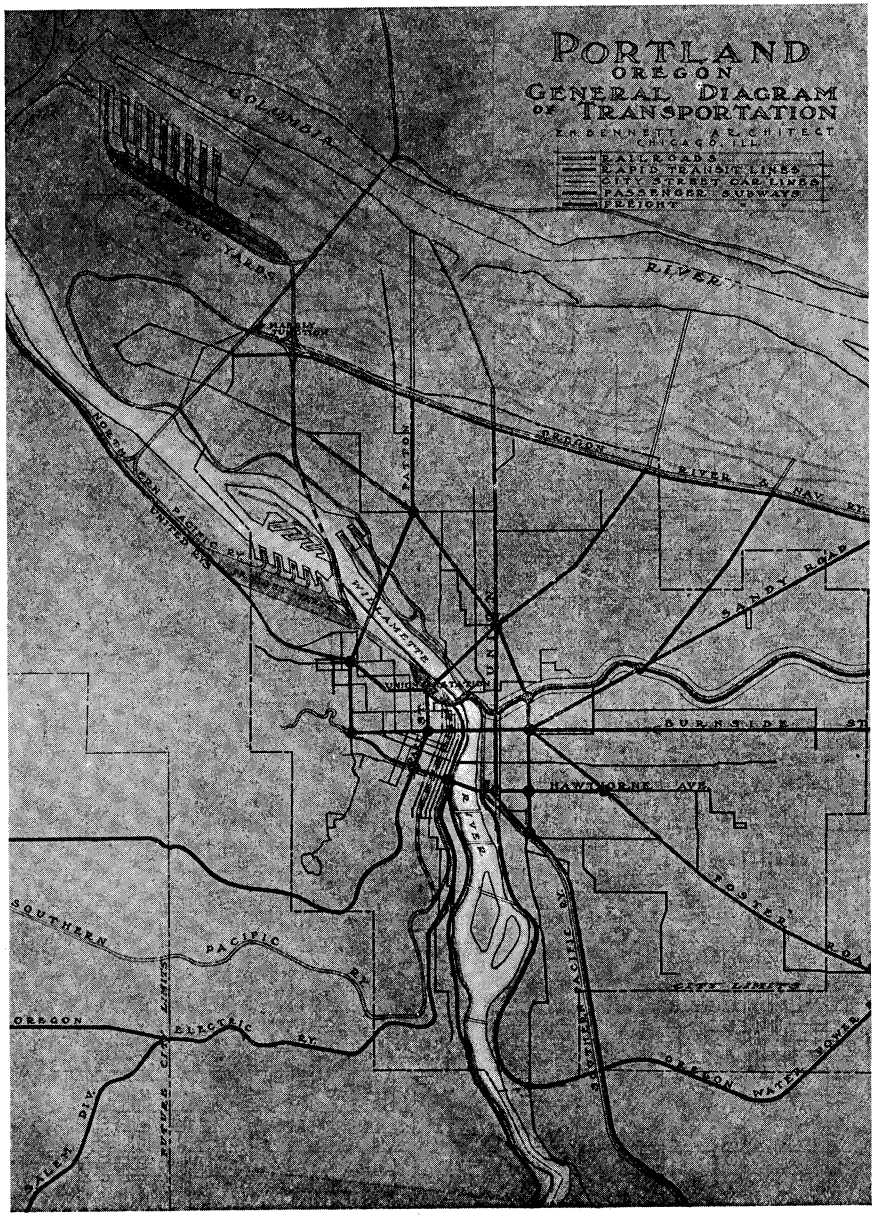
The river banks as shown in the plans should have a continuous roadway; when outside of the center of town these roadways become boulevards or planted drives such as the Willamette Boulevard already mentioned. South of the City similar drives are indicated on either side of the river, that on the West bank being a development of the Macadam road where it runs near the river bank.

The views of the river from this road when outside of the center of the City are superb and should be conserved, also the splendid forest growth bordering it on the West side.

The great canyon road should be widened, the grades made easier whenever possible, and their use restricted as much as possible to lighter traffic. Undoubtedly a tunnel through the hills to Tualatin Valley will in time be found necessary and will be built. Until that time the canyon roads will probably be utilized for every kind of traffic except rail.

The roads upon the hills South and West of the City should be given especial consideration. The possibilities of their development


PORTLAND
OREGON
Columbia
RIVER
WILLAMETTE
RIVER



as upland boulevards is great and would furnish a larger number of magnificent viewpoints attractive alike to the residents of the City and to visitors.

Most of the arteries that have been mentioned are varied in the direction and present the charm of diversity of vista lacking in the straight lines for avenues beyond the center of the City. This is highly desirable.

The Business Center

The business center—the "heart"—of the City is the center of the congested life. Here the traffic flow concentrates and is redistributed. Traffic arteries that will economically relate the center and the middle and the outer zones and promote accessibility are perhaps the most important consideration, yet there are other necessary elements. These include correct relation between the business center and the centers of transportation by rail and by water, with the wholesale district and the manufacturing area. As the City grows the area of congested retail business, office and public buildings will necessarily expand. The illustration indicates the probable amount of this expansion based upon the amount and direction of growth. The widened thoroughfare at first having only the effect of a relieving lateral artery will eventually become a central avenue or axis, sufficient to carry the City's traffic, at the same time possessing a great dignity of effect in length and grade.

On business streets of importance the values of real estate will not be adversely affected by the gradual introduction of the new elements proposed. An investigation of this question has shown that the values of central real estate in old world cities have continued to advance while general and radical improvements have been carried out in other parts of the city—the reason being that old quarters otherwise made inaccessible by growth of business around them and the consequent congestion have remained open to traffic from every direction by the introduction of the new arteries.

It should be understood that properties on those avenues and the streets adjacent to them will steadily increase in value.

A comparison of the figures of Chicago and Philadelphia shows that the business area of the former is relatively smaller owing to the fact that its means of ingress and egress, and of handling traffic when in the center are less adequate. The city center is not allowed to

spread with any ease, and terrible congestion is invited. With a population of 2,000,000 Portland will approach a condition worse than that of Chicago, and it is almost imperative that better means of approach to the heart of the City be provided.

The growth of the central business area is inevitable to the growth of population. In four cities the ratio of growth of the traffic congested areas to population was as follows:

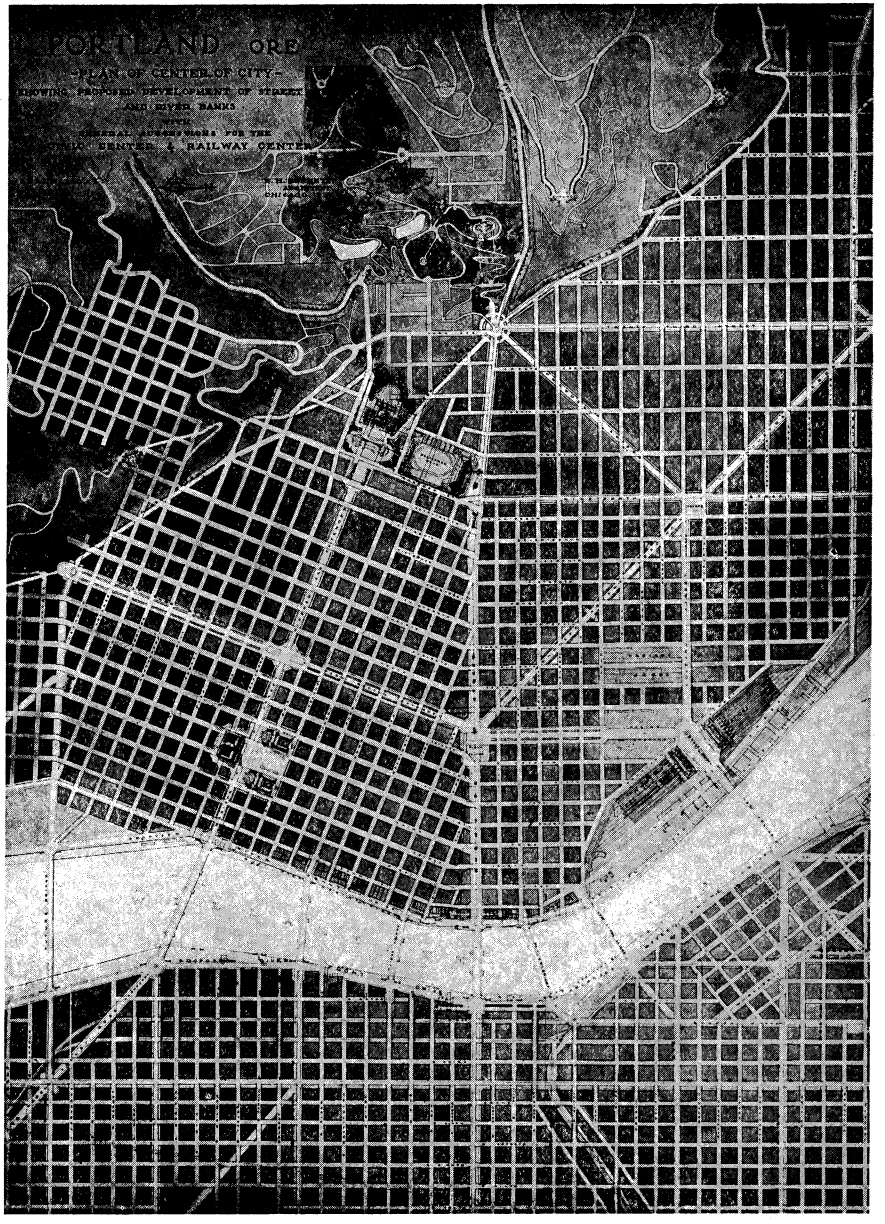
New York . . .	2 : 1.0	Philadelphia . .	2 : 1.6
Chicago	4 : 3.0	Boston	2 : 1.9

The Portland ratio for the same period was 2 : 1.7. To apply the rate of growth which this gives, that is, a rate of increase for the congested center of one and one-sixth times the rate of the growth of population would neglect almost entirely the intensive nature of all business growth during the past ten years. The erection of tall office buildings has concentrated in a limited area, what, in the earlier nature of things, would have spread over two or possibly three times the area occupied by these present day buildings. So, also, though to a somewhat lesser degree, has the outlying business, the warehouse and the larger retail stores, tended to become concentrated and to add to the restricting of the business area. Even though a limit be placed upon the height to which buildings may be erected, it is very unlikely that the past rate of growth of congested area will be maintained.

If the rate of growth of one and one-sixth times the rate of growth of population be applied in estimating future growth Portland would have, with a population of two millions, a congested traffic area of from 14 to 15 square miles. Unless tendencies develop in Portland, radically different from those of other American cities or unless very radical building laws be enacted, it is unlikely that this area will become half as great as these figures show.

An area of 7 to 8 square miles has therefore been assumed as that in which truly congested traffic conditions will develop. Less than one-fourth of this area is sufficient to house the business population of Chicago. There, to be sure, the congestion is terrible and a greater area is needed to properly handle the huge crowds.

The center of business has been gradually displaced toward the Southwest, owing to the facilities for growth, and the obstacles of-



fered similar expansion on the North and West by the river and the wholesale business on the West bank.

Business is following up the best residence districts to the West and South, but will be stopped by grades too steep for economic operation.

On the East side business is rapidly developing, but a reaction will take place on the West bank tending to develop the now neglected region North of the center, enclosing Burnside Street and stretching to the railway center. Wholesale warehousing and industries will then move slowly to the North and enclose the railway yards as far North as the proposed docks.

The relative areas of business and their probable future location is shown by illustrations.

It is to the North of the present business district that Portland has splendid opportunity to provide for the future by widening Burnside Street, completing the Park Blocks and cutting the diagonal street to the Northwest.

Bridges and Water Front

The increase in the number of bridges over the Willamette is an essential feature unless numerous new arteries are cut leading toward a few points on the river where the bridges would be built of extreme width. As the population increases, no doubt rapid transportation by tunnels will need be established. They are not disregarded, however, as a probability for general traffic, and the assumption is that although the bridges need to be constructed with draws, shipping passing through the draws will become less and less and intercommunication between the two sides of the river will be made easier.

Elevated roadways are planned for both sides of the river in the center of the City at about the level of the bridges thus connecting them. The approaches or incline to both bridges and roadway would start from First Street, thus crossing above Front Street and leaving it free for heavy teaming and rail traffic. The congestion at the bridge approaches would be materially relieved by such a plan. At the same time a widening of the street terminals is desirable.

Docks for the landing of merchandise from small boats would be rebuilt below the roadway at the present levels. This arrangement has abundant precedent abroad and is shown by illustrations.

The water front in its present condition is menaced by fire; it injures adjacent property and its subconscious influence upon citizenship is extremely bad.

The advantages of rebuilding the river front in the manner proposed are many; it is the obvious development and must ultimately be done—economy will result if planned at once. (See River.)

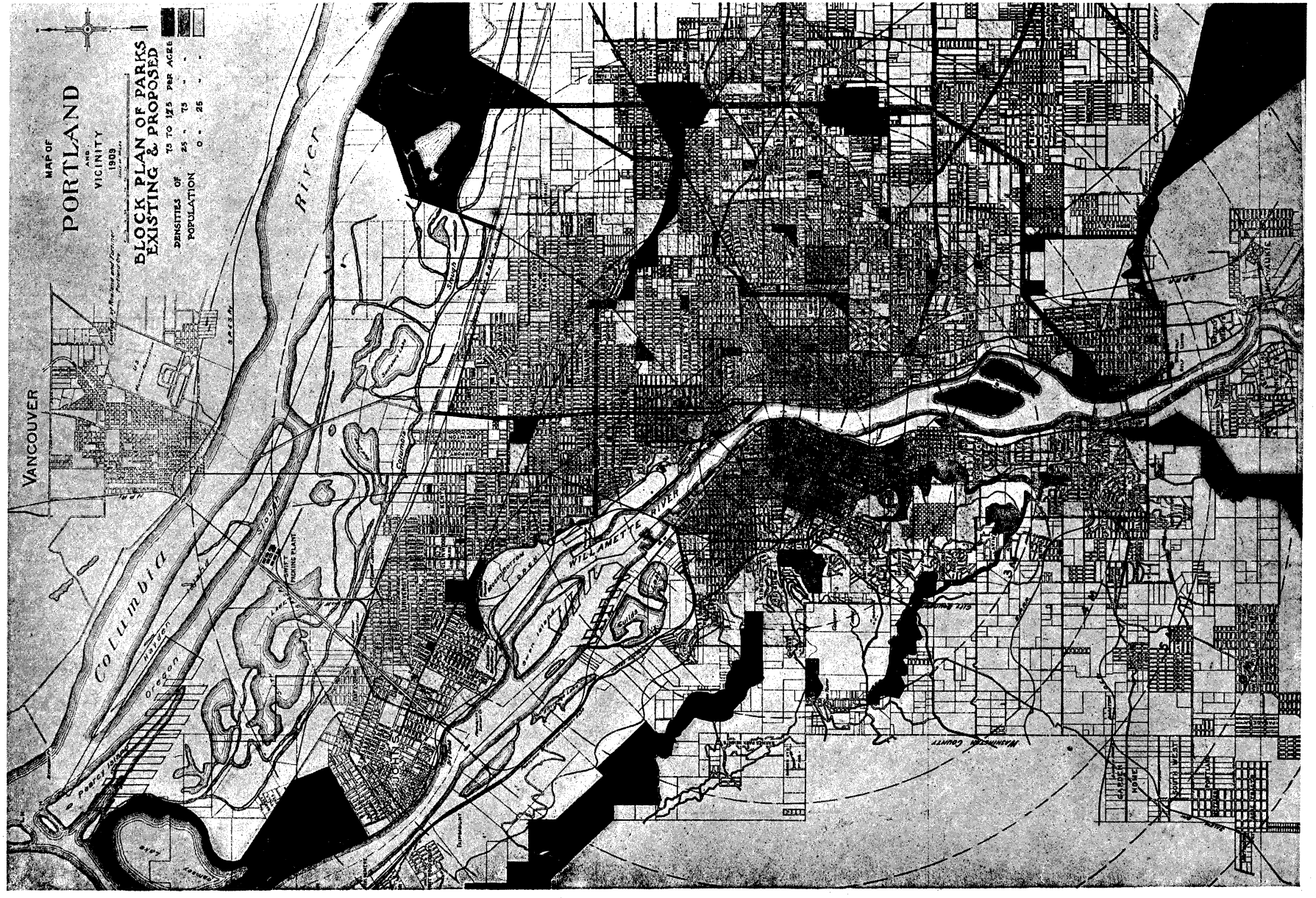
The canyon roads on the West side may all be classed as boulevards, and although heavy traffic cannot be excluded, it may be lessened in the future by the use of traffic tunnels. They are magnificent highways and their present character should be preserved by the maintenance on either side of a strip of natural parking at least one hundred feet wide, and at times two to three hundred feet. Woodland highways within a few minutes drive of the center of the City are unique, and when the City shall be closely built over its entire available level area their value will become more and more apparent.

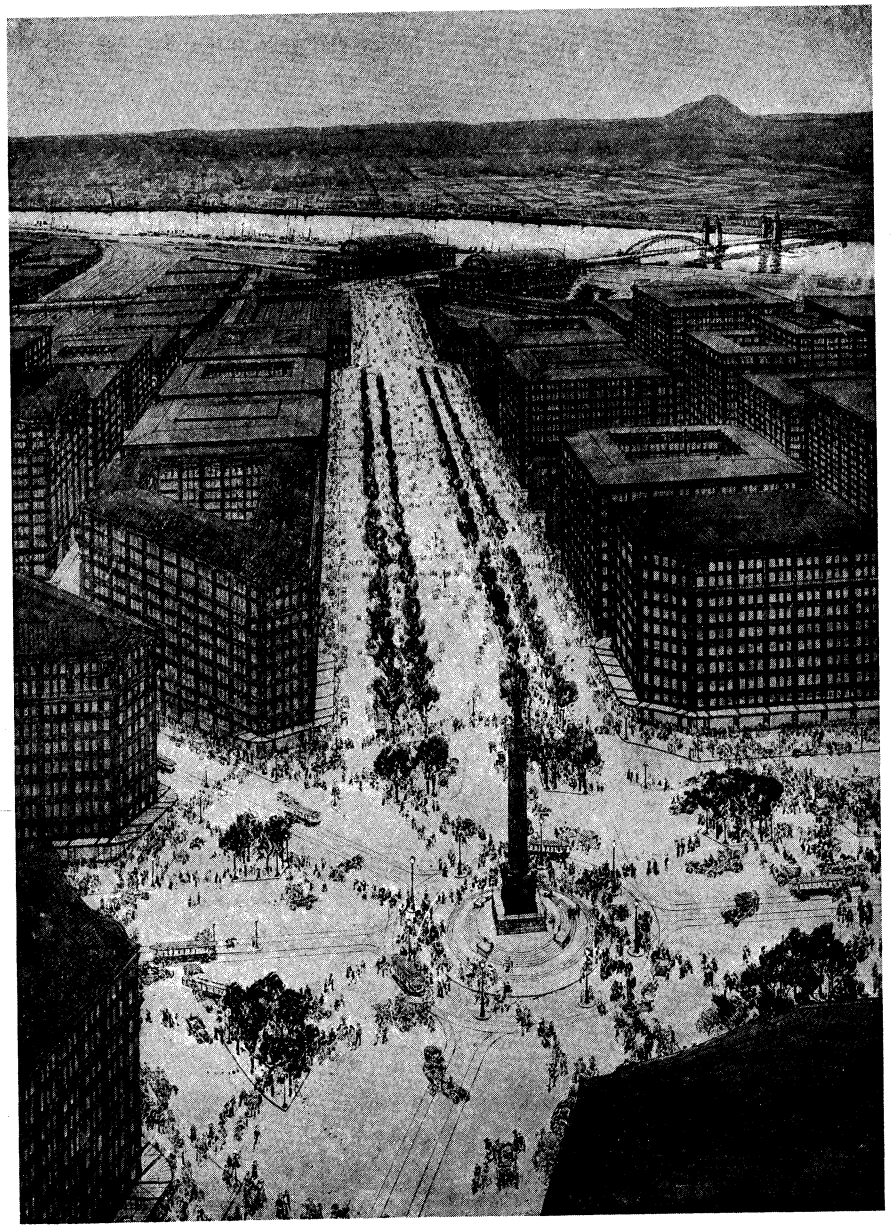
The canyon road is essentially a valley road. The Barnes road and the Patton road present other possibilities in the way of outlooks over the city and country beyond; the parking here proposed, even if not continuous, will preserve these views, as will be seen in the section devoted to the hills.

STREET VISTAS: The down town streets of Portland possess the singular charm of the hills as terminals. In the case of the principal avenues this should be developed by the creation of vista points at the base of the hills, and on the contour roads above where shown by the plans. These vista points should be developed by terraces with the accompanying architectural motives. This idea is exemplified particularly by the composition at the end of Madison Street extension, where the eye is carried to the dome or central feature of the proposed art institute. The hills should be encircled at their base by a level roadway, gathering up the ends of the street system and making good communication with the main arteries leading to the center of the City, the hills and the Tualatin Valley.

Burnside Street: When widened, the streets flowing into it from the South should be cut through as shown. Freedom of circulation demands that this be done and the splendid vistas that will be opened by this means into the center of the City constitute an additional argument.

THE GREATER PORTLAND PLAN





Proposed Development of Park Blocks and Burnside Street, at their intersection looking North

In the placing of new arteries, the study throughout has had the aim of creating vistas to Mt. Hood and Mt. St. Helens. Local conditions, however, have rendered this impracticable. Existing arteries such as Columbia Boulevard and Foster Road, recommended for development afford such vistas.

Portions of the Foster Road, of the great proposed artery dividing the peninsula, and the diagonal roads in the outskirts are so oriented as to afford views of Mt. Hood, as, also Madison Street West.

Mt. St. Helens will also come into view from the radials and the treatment in detail of the arteries should be based on the conservation of these charming incidents in the circulation within the City limits.

Parks

Portland today, excluding the small area occupied by intense business, is a vast Parkland; although to a great extent sub-divided and partly built with residences; the great plateau of the East side is a woodland still, and the hills to the West are covered with forest growth.

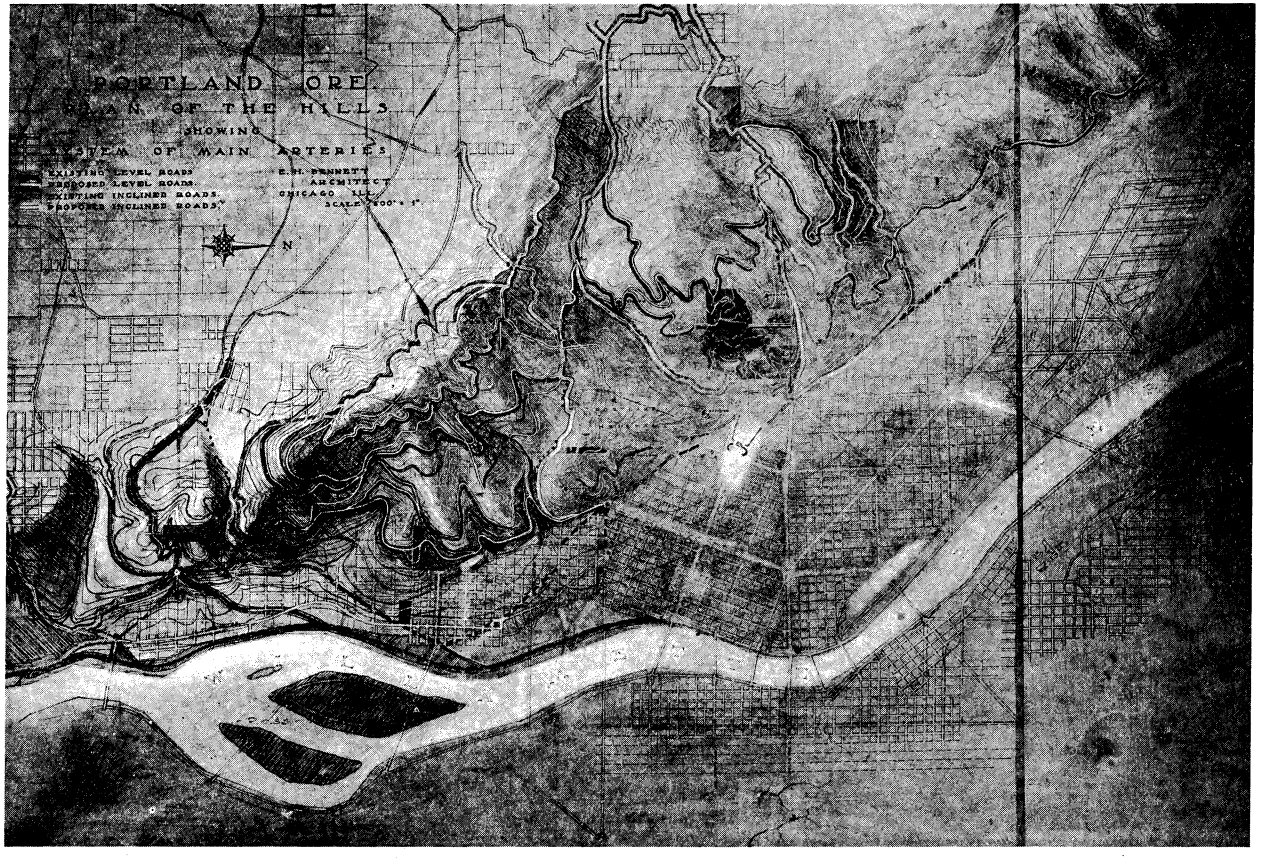
With two million inhabitants or less, with even a million, this entire growth of trees and open spaces will have vanished. Steps must be taken to provide for the necessities of the future and even of a growing generation, and much is being done by the Park Board and its able Superintendent.

It will not be enough if we are to believe the experiences of older cities and the aim at present should be to conserve where possible the naturally beautiful country while the cost is still moderate.

A broad park development policy and proper attention to plan with close relation to proposed boulevards, will make of Portland preeminently the City Beautiful and universally admired, encouraging the highest standard of citizenship.

Parks may be classed under two heads: First, the great woodland or forest reserve areas, and Second, the small neighborhood park and squares.

An intermediary type or English park is common in most cities but it is thought that these parks well within the City should be treated either with the greatest freedom or studied regularity of form as the size or locality may dictate. They may therefore be said to belong to either one or the other of the two categories first named. If included



in the first or regular parks the Borghese and the picnic Gardens in Rome or the Luxombourg in Paris should be taken as the ideal type. If included in the second or forest reserve, the Bois de Bologne in Paris or the Prater in Vienna should be taken as the type.

The forest reserves are extensive in the large cities of Europe. The great woodland areas are the great life-giving elements in the City. There the people may go and spend the day on holidays and Sundays. Amusements may not be excluded, but should be of a normal and natural kind and well regulated. The smaller parks and squares serve quite another purpose—that of daily refreshment of the people and they should be located in such a manner as to be distant not more than a half mile from most points in the City.

They include small formal squares at the intersection of great arteries without the center of town and of special squares set aside for this purpose, or at neighborhood centers as play ground parks. On the Plan submitted, these parks have been located near existing schools. The two should be combined wherever possible.

The principal elements proposed are the four large tracts, First: on the North—splendid forest land, and low marshy land and lakes; Second: on the East—low marshy land interspersed with sloughs and lakes; Third, on the South—farm land and woodland, and on the West —forest hill land.

Other parkway and parks are recommended as shown in the hills and a complete circuit surrounding the City on the East and Ross Island.

The large areas are varied in character and charm. A wide stretch of country and the Columbia River are seen from that on the North, Mt. St. Helens and Mt. Hood are seen from both that on the North and that on the East; and that on the West, in the hills, like Macleay Park is practically virgin forest. Deep splendid ravines and promontories from which the whole country with the distant snow-capped mountains come finely into view.

Ross Island is a unique opportunity,—combined with the river banks it will make of this part of the river one of the most delightful of places, comparable to Marguerite Island at Budapest or BelleIsle in Detroit.

The Alameda gives splendid outlooks over the City—terraces may be established at such points as 33d and Fremont Streets.

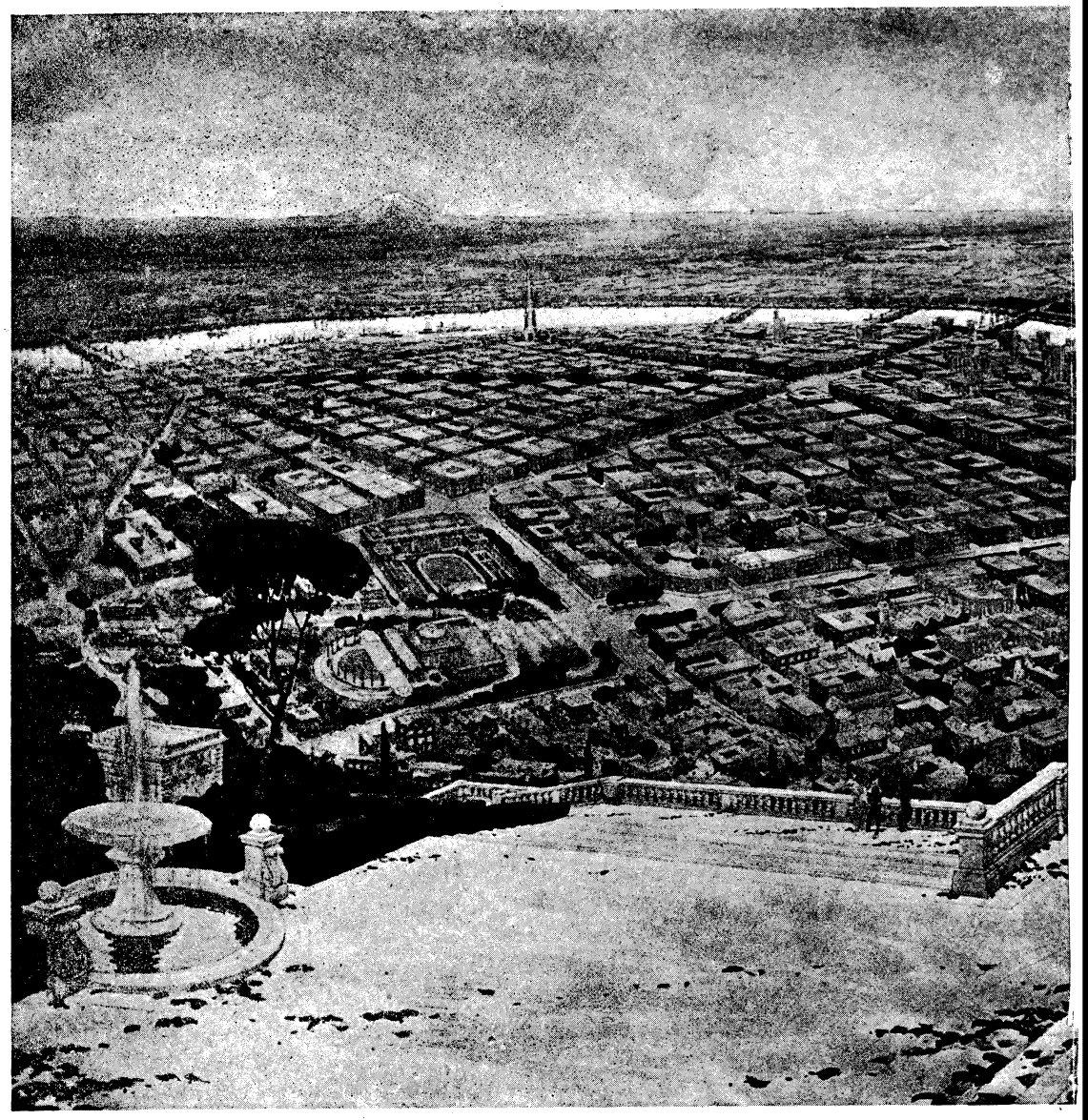
The Park near Columbia University would command from its terraces splendid views of the river, the shipping and the city.

The park enclosing Reed Institute is a necessity if that site is to be reserved in its present state; its presence at that point will also preserve many natural features of great beauty and contribute to the development of a neighborhood of a character fitted to a university.

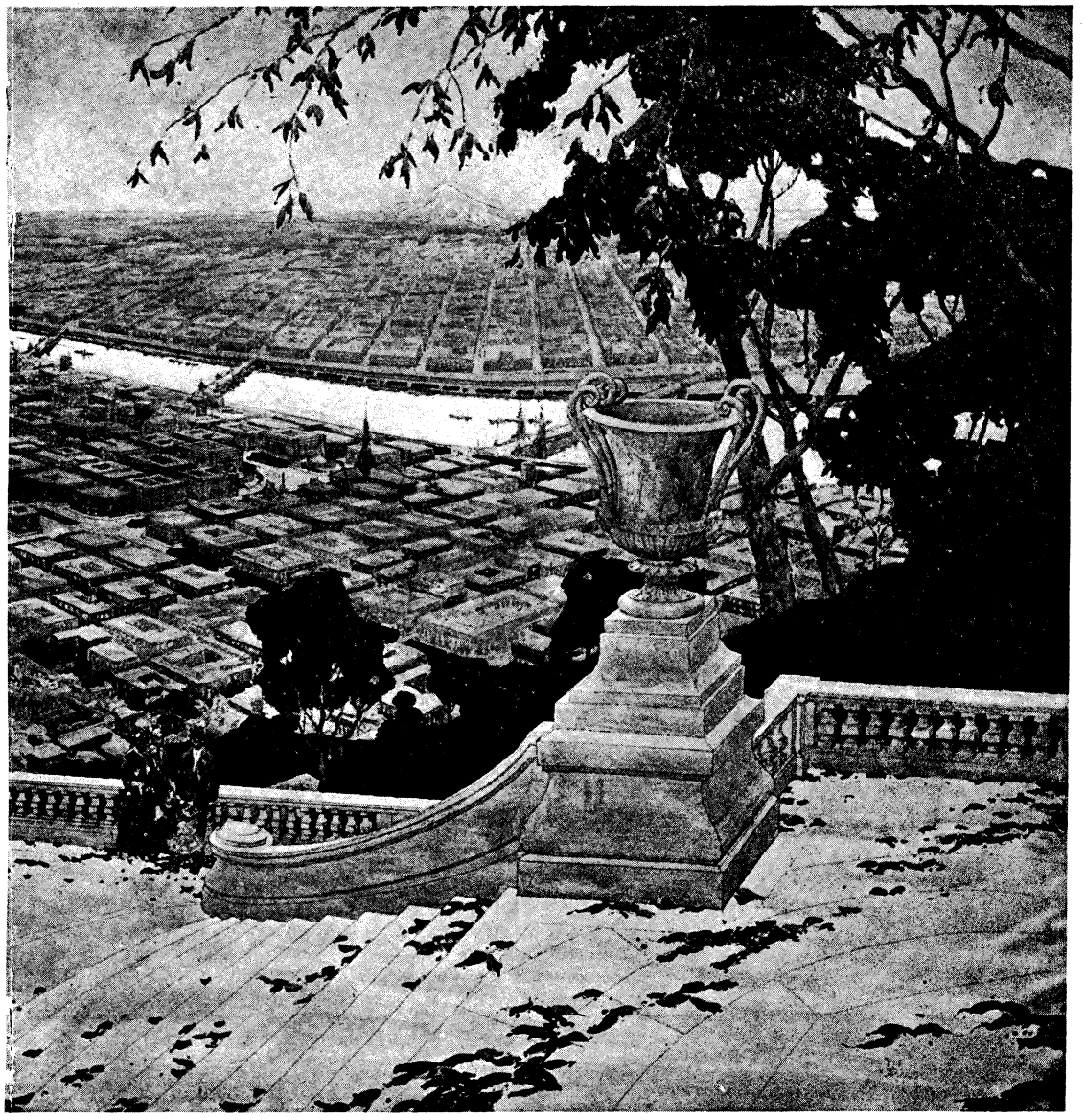
The hill-parks are important elements of the system.

In addition to the forest reserve suggested in extension of Macleay Park, other tracts are recommended occupying largely the crest of the hills, running from their Southern extremity to the North—Council Crest included. From the Southern extremity fine views of the Willamette to the South are seen and the Crest parks control magnificent views of the surrounding country in every direction. (See illustration.) The areas suggested are not as great as those on the level ground, as these parks in the hills can never be accessible to large crowds as those on the lowlands, nor utilizable in the same manner; they will serve a splendid purpose, however, and form delightful incidents of a ride, walk or drive over the hills, and should be continuously joined by the parked roads proposed. As the hills will be ultimately well built, the areas must be reserved for public recreation. Outlooks along the roads are indicated—they are small, terraced and planted spaces from which the city and country can be best seen. Such points should be owned by the public. A series of them are located between the three and four hundred foot levels. One of these outlooks affords a view of the City that is particularly fine, the general structure of layout of the City is well seen, also the public monuments present and future. It is located at about the intersection of Jackson and 14th Streets extended. This point and others should be acquired at once.

Portland seen from this height is very fine both by day and by night—the latter effect being one of myriad lights half defining the City in the blackness of space. By day, however, the details are in evidence and although now very pleasing, the outlines of the city may be spoiled —the silhouettes of new buildings and their general color tone should be considered by individual owners and architects.



Greater Portland from Pro



posed Hillside Vista Point

When the advertising value of signs, etc., as seen from the hills becomes recognized, ordinances may have to be passed controlling these things:—In regard to silhouettes, that they are not ragged; and to color, that the tones used may be made between extremes, as decided by ordinance. This would simply exclude dead white and colors too black or too brilliant. It may appear to be an extreme measure, but, however, is one which if recognized will produce a result the advertising value of which, to the whole City, will far exceed that of the individual gains from indiscriminate license.

Rome seen from the Gaehuculum Hill is very beautiful. Let the citizens of Portland aim to make their City famous also for its beauty.

The park area of Portland is 650.6 acres of which, with a population of approximately 2,000,000 means 300 persons per acre of park.

Comparison with other cities of America and abroad show this to be a small percentage of park areas. Following:

Boston, 15,000 acres.
Chicago, 18,000 acres.
Philadelphia, 3,582 acres.

Were it not for the fact above stated that the City is spread over a great area of land comparable in effect to park land, the need of additional parks would be severly felt.

A total of 7791.15 acres in parks and forest reserves is proposed and is shown on the plans—with a population of 2,000,000 this would mean upwards of 250 persons per acre of park, still well below the desirable ratio which is about 100 persons to each acre. This area is mostly within an 8-mile radius, however, and may be increased. It is looking some way ahead but steps should be taken to acquire or preserve for future use much of the proposed park area.

The park areas shown on the plans grade from the center out in increasing ratio, this principle being well established by the experience of other cities and is based on the varying cost of real estate and the consequent relative difficulty of acquirement.

For the purpose of simplicity of presentation the City has been divided into three zones: 1-mile, 3-mile, and 8-mile radius from the

center, and the park spaces proportioned as shown in the following tables with a comparison of other cities:

Parks in One Mile Radius

Boston, (Approx.)	.90 acres
Chicago, (Grant Park–210)	...224 acres
Portland, (Present)	6.75 acres

Proposed for Portland

Dixon and the river	8	acres
18th and Burnside	1	acre
Lovejoy and 19th	1.25	acres
12th and Burnside	1.25	acres
14th and Alder	1.25	acres
5th and Montgomery	1.25	acres
West Park and Madison	6	acres
Extension—Parkway	6	acres
Burnside and River, (West)	5	acres
Burnside and River, (East)	3	acres
Vancouver Boul., (200 feet wide)	30	acres
Madison and the river	2	acres
Total proposed	66	acres
Present	6.75	acres
Total future	72.75	acres

Parks in Three Mile Radius or Equivalent Area

Chicago		1458.05
Minneapolis		1204.30
London		1858.00
Portland	(pres. approx.)	300.00

Proposed for Portland

In 1-mile radius	66.
Monroe and Albina	2.25
Vancouver and Russell	7.25
The River and Brazie	1.50
Vancouver Parkway	104.
7th and Halsey	1.25
Addn. to Holladay	9.
24th bet. Holladay and Hawthorne	103.
14th and Stark	1.25
12th and Harrison	9.
Brooklyn Playground Extension	10.
Ross Island, large	130.
Ross Island, small	75.
21st and Elm	1.25
12th and Curry	1.25
Terwilliger Parkway	101.
26th and Wilson	1.25
Woods and River	6.
Albina and Shaver	2.50
Alberta and 6th	2.
Wygant and Alameda—24th	27.
23d — Fremont	35.
33d and Fremont (Country Club)	18.
Addition to Ladd Park	13.
33d and Hancock	5.
35th and Belmont	1.50
Powell Valley Road	50.
Milwaukie and Franklin	2.
Flower and Hood	1.05
Park North of Fulton	86.
Parkway bet. Council Crest and Fulton	36.
Council Crest	41.
Park West of Council Crest	150.
Addn. to Macleay	1.50
West of City Park on Barnes Road	36.
River Park	29.
Powell Valley Road—26th	5.
39th and Halsey	13.
Brazie and 24th	8.
Fremont and 12th	10.
Total proposed	1306.75
Total present	300.00
Total future	1606.75

This is not excessive as about 500 acres is located in the hills and does not count as readily accessible to the large area on the East side of the river.

Parks in Eight Mile Radius

Boston		4793.
Minneapolis		3379.
Portland	(Exist and pro'sd)	7791.1
Existing		383.
Figured in 3 mile radius		1606.75
Addn. to Macleay		105.
Park West of Council Crest		15.
Malden and River		14.
Tolman and East 14th		2.
Near Reed Institute		87.
Addn. to Mt. Tabor		25.
39th and Division		8.
49th and Base Line Road		10.
52d and Railroad		11.
Country Club, 33d and Fremont		103.
24th—Alameda and Wygant		3.
Addn. to Peninsula		28.
Simpson and Patton		3.
Addn. to Columbia		75.
Willis and Exeter		5.
Pippin—Drummond		3.
McClelland and Fenwick		2.5
Large South Park		1765.2
Large North Park and Island		2220.80
Large Park Ramsay Lake		1254.40
Total		7729.65

It will be remarked that a much greater area is proposed for Portland within the 8-mile radius than in the examples given—the opportunity, however, exists to create this ideal condition and a good precedent is established by both Berlin and Vienna of having great park areas, even nearer to the heart of the town.

The total acreage of some of the great cities is as follows:

Berlin, existing and proposed			75,000
Vienna,	"	"	15,000
Chicago,	"	"	50,000
Boston,	"	"	15,000
London,	"	"	8,404

Municipal Centers

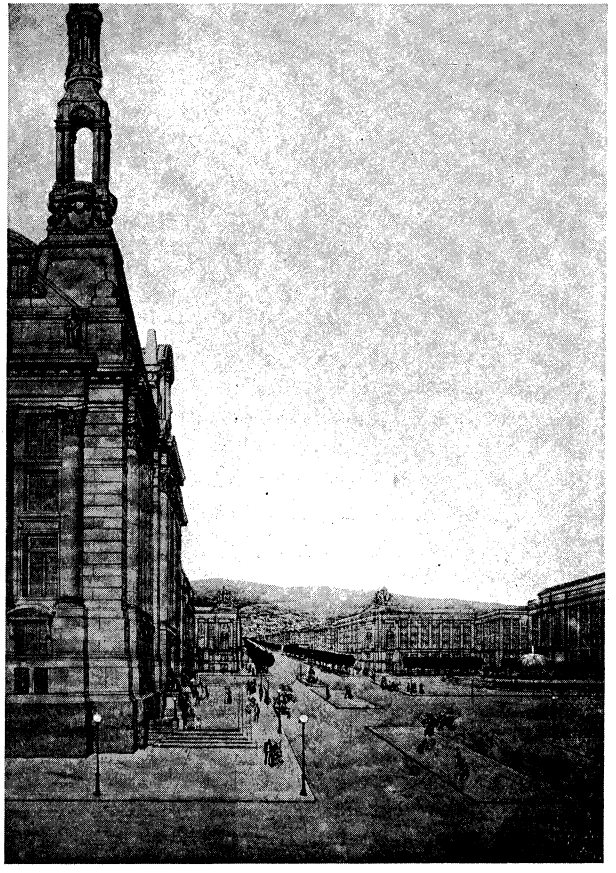
Special study has been given to the development of a number of important centers in Portland. They include the Civic Center, the Transportation Center and the Recreation Center. All that is suggested may not be realized within the near future but it is a plan which may be gradually worked out as the growth of the City demands change.

The Civic Center idea embodies the grouping of important public buildings, both for convenience in the administration of municipal affairs and for nobility of appearance.

Lownsdale and Chapman Squares are made the center of the plan, these being inalienable as a public park. The new court house represents the architectural scale of the final group. The new City Hall would front on the parked square facing toward the center of the City. This does not imply the immediate removal of the present city hall, but gives suggestion as to a plan of construction to be followed when the growth of Portland has made it necessary to enlarge the facilities for city government. The growth of Chicago in rapidity was much like that of Portland and it was found necessary to build there in a generation three city halls, each larger than the one preceding it.

The Civic Center with its buildings must be within easy reach of the life of the people, yet should not be in such a position as to add to already great congestion, and it is believed that the present general location of city and county administrative structures is admirably fitted for the purpose.

A government building is suggested, facing the new court house, balancing it with regard to the city hall. Other minor buildings should complete the square; they will probably be necessary for the expansion of separate departments such as the police, board of public works, municipal museum, archives, and so forth.



Proposed Civic Center, Looking Toward Hills

When private buildings front wholly or in part on this square they should be controlled as to height and style in order that everything may be in harmony at this one point, and the Civic Center be made a group worthy the dignity of government and of the City.

The grades at this point present some difficulties, but this will be the case in any scheme and the studies that have been made demonstrate that they can be handled successfully with the help of terraces. Other buildings of public or semi-public nature should be built in this neighborhood, in particular along Madison Street between the square and

the Park Blocks, the street being widened as shown to make a necessary and handsome connection. These buildings are: Public Library, Natural History Museum, Opera House.

A site may be made here also for an auditorium, and as none of the blocks is large enough it would be necessary to take two if separated by an unimportant street. In that case the Hall might be built one story above the street level, allowing the street to pass under.

The transportation center comprises the railway stations, mail and express, customs, etc.

A common station, or group of stations is suggested. The plan suggested has been considered the best of a number of alternate studies.

Success in the development of the plan for a transportation center is necessarily dependent largely upon the action of the railroads, although persistent and organized expression of desire by the people will undoubtedly have large influence. In other cities the railroads and the municipalities are co-operating and it is reasonable to believe that the splendid opportunity offered Portland for the development of majestic, adequate terminals will not be sacrificed.

No finer approach to any station could be provided than by the development of the Park Blocks and the view from the station along such a thoroughfare as shown in the illustration would afford a vista that would materially influence the first impression of the visitors to the City. The Park Blocks would connect the terminal to the center of town and, by Madison Street, with the Civic Center, thus producing a harmonious, highly efficient grouping of superb beauty. The union terminal should have a fine square on which to front and the Broadway Bridge should come to this square, thus completing the scheme. The square, and likewise the stations should be raised above the level of the railway yard and an inclined approach made from the Park Blocks.

This incline should go as far South as Glisan Street, Hoyt Street passing under the incline would then carry the teaming traffic and greatly aid in avoiding congestion.

The new post office will flank the approach to the terminal and if possible a building of similar character should be placed balancing it to the West.

This post office becomes the central distributing point of the city mail and is admirably placed according to the modern practice; the present building will continue in its function as distribution of mail and may be designated as chief sub-station.

The terminal will thus become a worthy gateway to the City, and the approach to the center of the town will give dignity and beauty that will make ineffaceable impression upon all who come and go.

It is worthy of remark that the vista line of the station approach runs directly to the tower of the proposed city hall. It would be seen above the buildings of the Civic Center and give a sense of the unity of the City of which it may be said to be the symbol.

Recreation Center

The name Recreation Center may be given to the group in the neighborhood of the Multnomah Club Grounds.

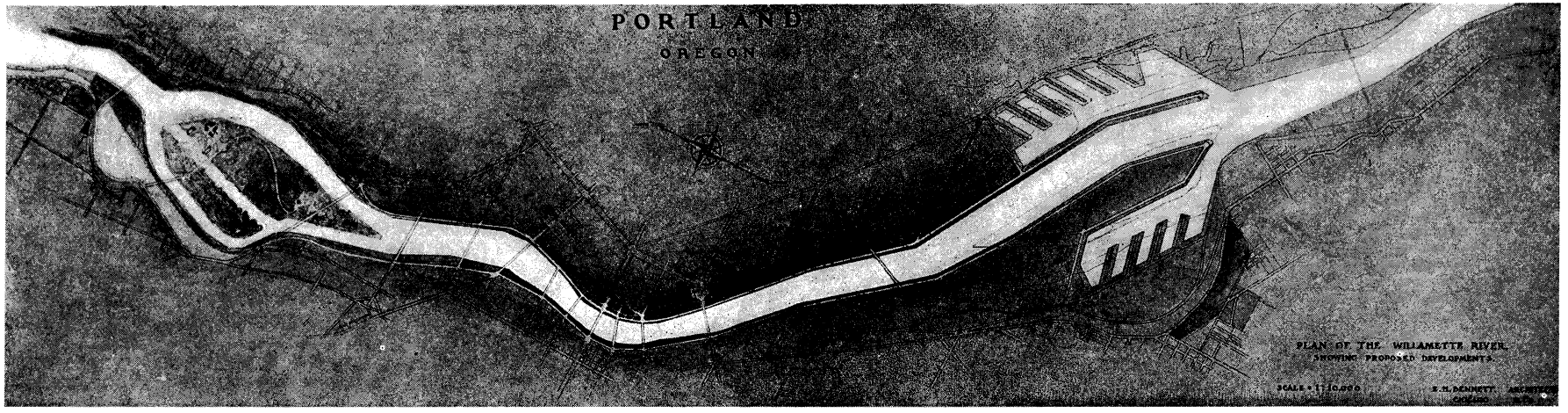
The Public Auditorium may well be placed on the North end of the grounds as shown by illustration, and Morrison Street diverted into the public plaza; or it may be located across Washington Street, opposite these grounds, Trinity Street being vacated for the purpose and the building placed lengthwise on Washington Street.

An academy and museum of fine arts is suggested South of the Club on the rising ground at the foot-hills. This site is now occupied by small homes but might be made to possess unique beauty, the group of buildings being centered on the axial line carried in the extension of Madison Street from the Civic Center. From this avenue it would form a vista point backed against the hills and framed by the City Park.

Owing to the fact that business must stop at this point on account of the steep grades such a center may be made at a cost that will not be too great for the city to carry in the future, and this opportunity, so close to the center of the City occurs in few cities of the world.

Transportation

Transportation by rail, of passengers and freight, is one of the most important considerations in the plan of a city. In Portland there are already established railway centers, indissolubly bound up with the centers of industry and business that have already been described.



These centers, whether the result of deliberate or natural selection are well placed as regards the future growth of the City.

New roads will no doubt be built into the City, and their effect upon the City must be studied with the greatest care as one of the most important functions of a city plan is in indicating the most desirable and economical routes for the transportation lines, particularly those of the interurban and transcontinental classes as their character reders imperative a separation of grades in the center of the city from that of the streets.

Advantage should be taken of natural approaches to the center of town, or where none exist, special provision in the rights of way of the street system so that they may be susceptible of widening to allow for the entrance of new roads, thus grouping the lines in recognized channels and safeguarding well built and settled districts. Franchises granted should be carefully studied by impartial committees on this basis so that the mistake of older cities may be avoided.

In Portland, three approaches, from the North, the South and through Sullivan's Gulch appear to be well defined.

Freight

The great railroad clearing and transfer yards will be located on the Columbia Flats as indicated, in touch with the docks designed for deep sea shipping at that point; the recent development of this neighborhood leaves no doubt as to the importance of its future.

This center is one where car load lots and complete cargoes will be handled, its advantage being, the freight may be transferred both by rail and from rail to water without the disadvantage and expense of handling in the dense city center.

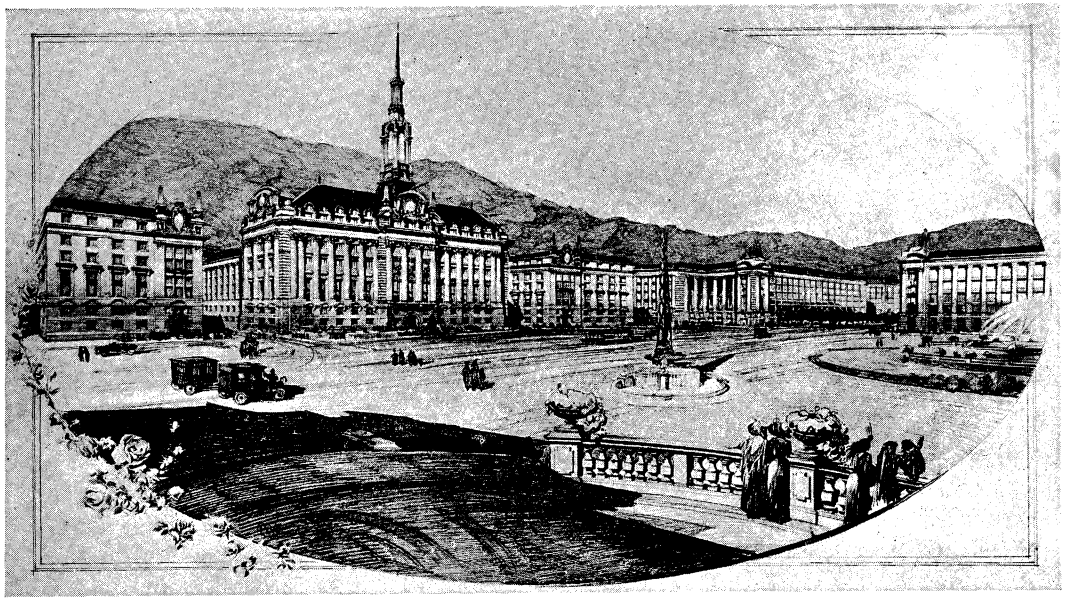
Approaches to the City center and other centers should be developed from this region along the shortest routes, as shown, both for easy business communication and for direct and quick transportation for the laboring class, and every facility should be given the railroads at this point in order that a system may be evolved that will handle the freight at the lowest cost per ton. The commercial supremacy of the City may in time be dependent upon a small fraction of a cent per ton for handling.

The freight center of next importance is that lying North of the center of the City on the West bank, which, in spite of the development of heavy industries on the banks of the Columbia, will continue to expand as a light manufacturing district and one of warehousing and wholesaling, the latter supplying the business center.

This freight center will also be in touch with water transportation by means of the system of docks suggested. The latter, similar to the railroads, will no doubt handle the smaller cargoes and less than carload lots.

Nothing is more essential to the free circulation of a city's business than direct connection between the terminals and the center of town and this is provided for by the diagonal streets shown.

Two other districts of freight and industries lie on the East bank, the one to the South of the center supplying the increased demand of business on the East side. It has been in a condition of dependence on one railroad. This center is for rail transportation only; it should have no heavy dock facilities, the future welfare of the city demanding that such traffic be handled to the North of the center. Another freight center exists on the West bank, South of Madison; it is served by electric roads and is operated in connection with the main freight center by means of a belt line, at present limited to certain hours; this line should be given free operation by the raising of the bridge approaches as described under streets.



Proposed Civic Center for Portland

The steam railway track in Fourth Street, in simple regard for public decency should be electrified at once.

The grade crossing on the East bank should be eliminated by the partial depresssion of the railway track; this is essential with regard to the bridge approaches which may be raised slightly to meet the level of the proposed roadway.

Passenger

The problem of passenger terminals has been given much study, both with regard to a radical change of location of the present Union Station and to its relocation on the present site. After an analysis of the situation the conclusion was reached that the present location is well balanced in relation to the general distribution of the population and especially so with regard to the center of the City; also in consideration of the probable development of the hill and the Tualatin Valley. Notwithstanding the great development on the East side it is believed the location will remain a good one. The operation of a union station for a city of two million would, however, become unwieldy and the development of other terminals or through stations is necessary.

There will probably be need of a station on the East side where passengers may transfer without entering the heart of the City, at or near Maegly Junction, East of St. Johns; there should also be a station South of the center on the East side near the intersection of Union Avenue and East Harrison Street, the present station at East Madison being retired to that point as congestion increases.

In the event of other railroads entering the City, the rule suggested of paralleling existing rights of way should be observed; such a station serving more than one road would become of great utility to the East Side.

The Union Station Plan

This scheme involves the re-construction of the Union Station to accommodate the growth of passenger traffic, the station or stations to be located near the site of the present Union Station and its tracks, on ground now owned by the railway companies. It is intended to bring the Southern Pacific, O-W. R. & N., and Northern Pacific lines into this terminal and if possible to provide accommodations for any other roads seeking entrance into the City. Owing to the fact that the

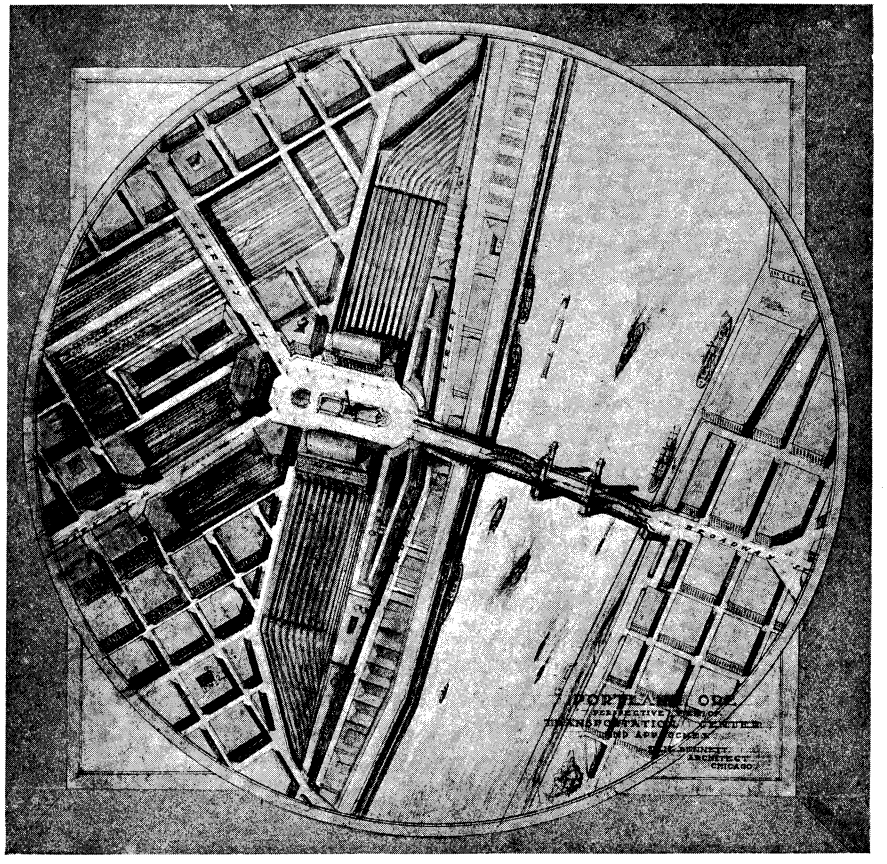
Park Blocks already make a fine approach from the center of the City and that a bridge is being constructed at Broadway Street it is thought these three elements should be designed in harmony one with the other.

It is proposed to place the stations as shown on the accompanying drawings to carry the Park Blocks as an avenue above the freight sheds by an incline arising from Glisan Street, and to construct an approach from the West side, passing over the freight yards and arising from 15th Street. The approaches to the station will then be above the tracks and it is proposed to build a plaza at this upper level corresponding with the level of the main waiting rooms and from which staircases to the the individual platforms of the trains will start. From the plaza will begin the approach to the proposed bridge, the height of the bridge determining to some extent the height of the plaza. This plaza would be located about thirty feet above the present ground level and twenty-five feet above the level proposed for the tracks, the level of which may be raised at the center of the terminal about five feet, thus bringing the trains from the North and the South into the station on a slightly ascending grade. Front Street would pass under the viaduct to the bridge and the proposed river drive passing over the docks may be connected with the viaduct approach to the Broadway bridge by ramps as shown.

The passenger stations should be placed as near to Front Street as possible, in order that the freight tracks may be for the most part to the West of them. The teaming coming into the heart of the City would not have to pass the tracks at grade. The inclined approaches from the Park Blocks may be carried one or two blocks further South as may be thought necessary in order to allow teaming to pass under and to separate this stream of traffic from the lighter stream of traffic approach ing the station and the bridge.

The question of water transportation for passengers involves the transfer messengers to the trains.

Passengers from Ocean steamers are now landed North of the steel bridge near the terminal. Communication as direct as possible for the passengers from the sea-going vessels to the terminal should be made. River boat passengers are landed South of the Steel bridge. Owing to the fact that boats are not timed to the hour immediate transfer is not necessary. It would be well, however, to provide a fine landing place for both kinds of travel and connect them with the proposed terminal by easy means of approach.



Showing possible relation of Union Station and Broadway Bridge

Traction Lines

The railway problem is closely related to that of traction; all roads must transfer to the terminals and as many as possible reach them.

The advantage of an organic system of streets is that it simplifies the placing of the car lines, locating the main lines of travel on the main arteries; the system naturally adjusts itself to improved arterial conditions, the shortest routes being followed and the advantages of radial arteries being demonstrated.

It is recommended that in the placing of traction lines close attention should be given to the traffic circuits outlined. A means is thus

given of encircling the heart of the City, yet making possible the retiring of traction loops as congestion becomes too great.

The increase of population will emphasize the advantages of rapid transit, particularly in regard to the dense center and the river crossings. The accompanying diagram carries a general suggestion for the adjustment of traction lines. In this scheme the main lines are shown as subways, the cars coming to the surface beyond the congested district; these main lines touch all the important points in the City, present and proposed. The through routing now undesirable owing to retard, often of fifteen minutes, to the Western lines caused by the delay on the bridges, may be realized through the medium of such a scheme as is suggested, and it is believed a system of great flexibility and usefulness may be developed along the lines laid down in this diagram.

The River

The development of the river presents a problem of great interest. Difficulties are encountered but, fortunately, precedent has been set by the great cities of the old world. Conditions similar to those of Portland, Chicago and other American cities at one time prevailed abroad, but do not longer exist in the great cities. Amsterdam and Paris furnish instances in which the river fronts passed from squalor and neglect to the present orderly and charming conditions, with uninterupted communication between the business sections of the two sides assured by fixed bridges. In London, too, about two-thirds of the area of the city on either side is connected by fixed bridges.

As Portland is on a navigable stream it is not proposed to recommend fixed bridges. It is believed, however, that for economic reasons the heavy shipping will be ultimately located North of the City center, that influence on the design of the craft plying up stream may be brought to bear in regard to clearance, height, and that in the end bridges may be for the most part kept closed.

The lumber yards should tend to re-establish themselves North of the City, thus eliminating the cost and inconvenience of towing the rafts of logs through the heart of the City and obviating danger to large ships passing through the draws.

The rising value of land and inaccessibility to railroad and docks will render improbable the establishment of other industries in the region about the center of the City.

A system of docks is therefore recommended North of the center. The Southern region may be developed as part of the park system. It offers a splendid opportunity and should become renowned for its beauty. It will connect the residential districts on either side of the river in the finest manner.

The islands may be developed for recreation and aquatic sports encouraged. The shores of the river should be planted and drives and walks made at the water's edge.

The river roadways should run continuously through the city. As time goes on this improvement should, broadly speaking, pay for itself by reason of general benefits, and should be found so desirable to the property holders that the land be donated. In this way intelligent owners of property may see an opportunity to benefit the community without loss to themselves.

As a means of communication the river roadway is the most natural and economical for traffic circulation, street intersections being few in in number, a more continuous movement is possible, and the way would have greatest charm for driving or walking.

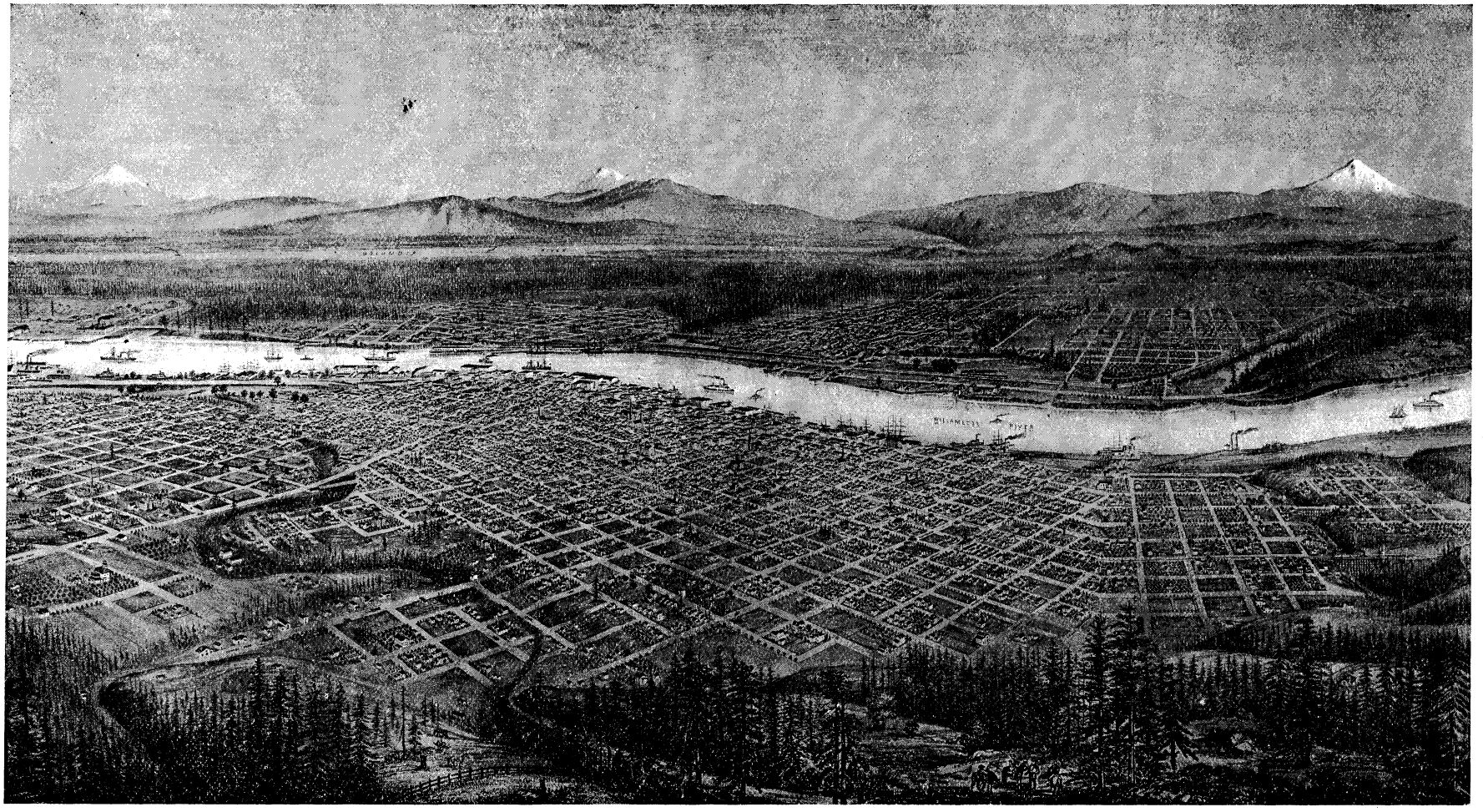
The present conditions in the center of the City are the result of rapid growth uncontrolled by considerations of public obligation.

The wooden wharves and shacks that line the river are a menace to the City as they invite a conflagration which might be disastrous.

The whole front should be rebuilt with fireproof materials and quays should be of concrete. This will mean as in San Francisco, and in New York public ownership of the front—municipal control is essential in any case to accomplish a uniform result.

The value of the river roadways in relieving congestion is inestimable. They would run above the quays and warehouses, two levels of which, for high and low water would be maintained about as at present. At the lower level, supplemented by floats, landings should be arranged for small river passenger crafts, motor boats and the like. The level of the roadway would be about 48 feet above datum, this being the approximate level of the bridges, and of the upper dock deck about 28 feet and the lower dock and quays about 16 feet.

The approaches to each bridge should start from First Street, thus allowing teaming to pass freely under along Front Street to the quays. A belt line may also be maintained on Front Street or parallel to it, with none of the present objectionable features of grade crossings.



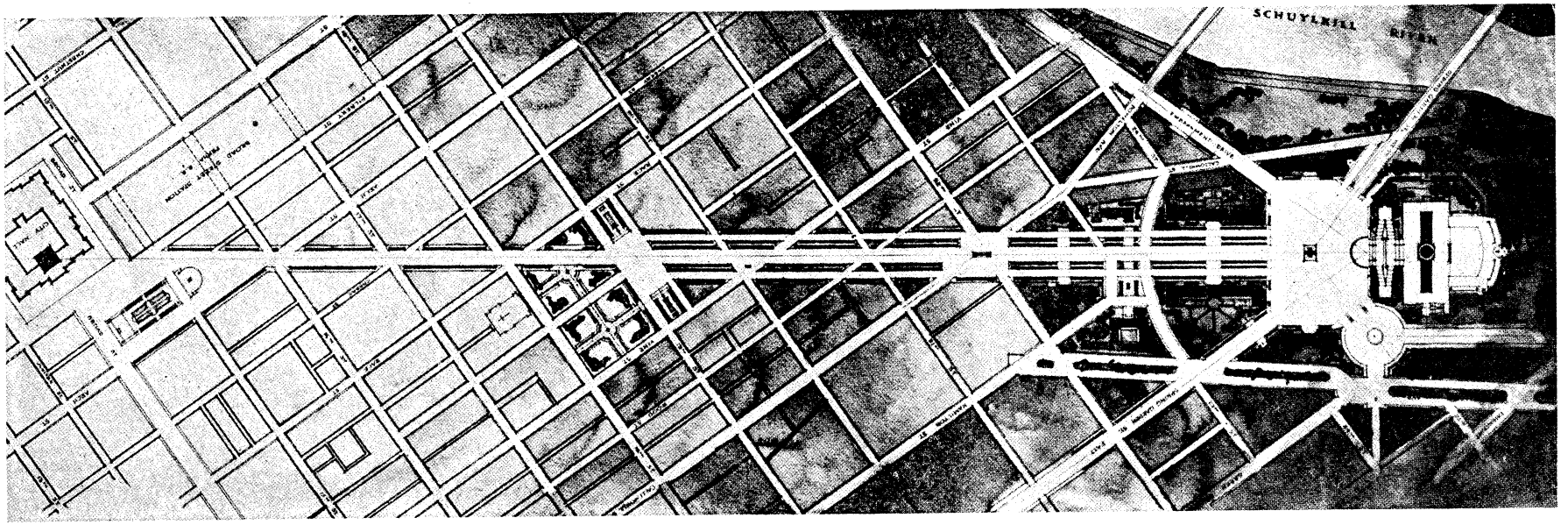
Portland in 1881—Contrast with Portland of 1912 on Page 4

COURTESY OF J. K. GILL CO.

In the following of such a plan of water front improvement Portland is given splendid opportunity to profit by the experience of older cities. A general plan of improvement should be continuously and definitely followed that present conditions may be reformed and every element constructed shall contribute not toward a negative result of mediocrity but one of positive value.

Bridges should be built in harmony with this plan, both in scale and design, following the example of cities abroad, and appropriations covering more than the bare necessities should be voted.

Floods and drainage:—The sentiment seems to be general that the temporary inconvenience caused by the backing up of flood waters from the Columbia does not justify the expense of filling the lower



Proposed Philadelphia Civic Center—Solid Blocks are to be Cut Through to Provide Access

portion of Portland. As the channel of the lower Columbia is being constantly deepened the dangers from the great floods due to the ordidary causes of civilization's encroachment upon and narrowing of the river banks, may be considered to be lessening.

The question of drainage is closely allied to that of floods. During the high water this question becomes important. Although the water supply is independent of the river it is desirable that the water of the river shall be of as great purity as possible, especially on the Southern stretch, where bathing and aquatic sports may be developed. It is therefore suggested that great intercepting sewers be carried under the river driveways when built and the sewage thrown North of the City. In the future it will be found desirable to establish disposal plants and it is here pointed out that the investigations of this matter by the sanitary district of Chicago is the most complete in the country and a study of its result may be valuable.

The development of docks on both the Willamette and Columbia rivers merits the most serious consideration. The future of Portland as a sea port will largely depend upon adequate rail and water terminals and their connection.

The scale of dock development should be influenced by the facts that the Port of Portland handled 2,000,000 tons net register in 1910, that transportation of 400 miles inland by water is to be increased to 2,000 miles by canals, that Portland controls by water grades a territory of 250,000 square miles, that the deepening of the channel to 30 feet, and the increase of water on the bar at the mouth of the Columbia, will add materially to the draft of vessels entering this port, and that the completion of the Panama Canal will bring a large marine business here.

Close attention is invited to the dock studies and their alternates, together with proposed belt line connections.

The plan for the Columbia River docks indicates in general the disposition suggested, the docks being created in the sloughs North of the S. P. & S. R. R. It would be necessary to protect them from the currents of the river and a breakwater built for this purpose. The question of the extent to which the Columbia may be narrowed at this point is one requiring special investigation.

The harbor on the Columbia will no doubt be used for commercial purposes or for transfer and industrial purposes, whereas that on the Willamette will be for industrial purposes or supply of merchandise to local industries and for local consumption. These docks must therefore be surrounded by large areas to be used for the accommodations of industries and the railway yards restricted from absorbing the entire zone in the neighborhood of the docks.

Large areas are shown on the diagrams for railway yards, carbarns and shop uses.

It is proposed to preserve the present main channel of the river for the passage up stream and to straighten it; and to connect Swan Island with the West mainland.

The docks would then be created by dredging and filling as shown —the greater portion connecting with the West side and a smaller system being connected with the East side.

It is thought that the work should be begun nearest to the City and progress North; a deep but narrow way being cut at first through the present West channel.

The object of connecting Swan Island, besides the advantage of additional space, is that a still water harbor is created in which ships may be maneuvered and moored at dolphin moorings placed in the basin as at Hamburg. The breakwater connecting Swan Island may be built with lock gates in order that flood water may flow freely down stream.

The river, as indicated, contains a total dockage area not counting the main channel, of approximately 8 miles, or and accommodation for about 120 vessels, average 350 feet in length; some 30 vessels may be moored in the basin.

Garden Home

The modern trend of population is from the country toward the cities. This is counteracted, in a measure, by a move of the residence sections away from the center.

Modern transportation makes it possible to live in the outskirts, though work be in the center and for each citizen to obtain thus the maximum area of ground at a minimum cost.

The development of the Garden Cities and homes in England furnish example for systematic planning of the same sort for Portland. In this city great areas exist that have never been developed and may be utilized in the development of the garden city idea. The traffic circuits set forth make it possible to go direct from the suburbs to the center by means of the radials proposed and these should be considered carefully in any garden home plan.

Aerial Navigation

Presuming that the development of aerial navigation will soon make it a commercial utility, attention has been given to air craft stations and thoroughfares.

In Germany regulations have already been made forbidding air machines to fly over cities because of the danger of falling. Advanced designs eliminating this danger will still leave the menace of falling objects, obscuring of light, and disturbing noise. It is thought advisable that the air lanes should be established, preferably over the water courses and parks. Ultimately it may be found desirable to roof over an entire high level in the center, making arcades of the streets, and the structures below as one building artificially lighted, heated and ventilated.

In Germany, France and England regular terminals have already been established and provision for such terminals in Portland would be advisable.

No doubt, air flight will have its effect on a city plan. Could one sail over the city seeing it spread below him, the advantage and beauty of uniform building would be strongly emphasized in the neglected and offensive spots and haphazard building permitted by the customs of the present. An aerodome is suggested in extension of the present country club race track. The location of the terminals to be established in the future must be governed by the development of the city and the progress in the science of aviation.

The foregoing pages have conveyed some idea of the Plan for Portland. The more complete report, when issued, will expand the impression given by these excerpts; but it is hoped enough has been shown to prove the value of the City built after a plan in which the needs and conveniences of its population are considered, in which opportunity is given for the development and highest expression of citizenship, and in which a scheme of construction is proposed that, when fulfilled, will make Portland famed among the nations of the earth and beloved of her residents.

What Other Cities Are Doing

This is a time when the cities of earth are planning for the future It is neither new nor heretical to engage in a city plan. Proof is abundant that to build for the greatest practical efficiency is to build beautifully. This is the purpose of the Greater Portland Plan. It is the purpose of the Plan of Paris, of the Plan of Berlin, of the Plan of Chicago, of a hundred others.

Let any Portlander view the cities of this country and abroad and he will come back enthused with the thought of such systematic improvement as will make Portland the peer, in many instances the superior, of any of the great centers he has seen. He deplores a spirit which would build in a small way, incommensurate with the opportunity of greatness presented to this city. Disapproval of a Plan for the continued better building of the city along the lines of convenience, utility and beauty, is a confession of narrowness. In the report on the great Plan of Chicago these expressions are used:

"If many elements of the proposed plan shall seem familiar, it should be remembered that the purpose has not been to invent novel problems for solution but to take up the pressing needs of today, and to find the best methods of meeting those requirements, carrying each problem to its ultimate conclusion as a component part of a great entity—a well ordered, convenient and unified city.

"This conception of the task is the justification of a comprehensive plan of Chicago. To many who have given little consideration to the subject a plan seems to call for large expenditures and a consequent increase in taxation. The reverse is the case. It is certain that civic improvement will go on at an accelerated rate; and if those improvements shall be marshaled according to a well ordered plan, great saving must result. Good order and convenience are not expensive; but haphazard and ill considered projects invariably result in extravagance and wastefulness. A plan insures that whenever any public or semi-public work shall be undertaken, it will fall into its proper and predetermined place in the general scheme and thus contribute to the unity and dignity of the city.

"The plan frankly takes into consideration the fact that the American city and Chicago preeminently, is a center of industry and traffic. Therefore attention is given to the betterment of commercial facilities; to methods of transportation for persons and for goods; to removing the obstacles which prevent or obstruct circulation; and to the increase of convenience. It is realized, also, that good workmanship requires a large degree of comfort on the part of the workers in their homes and their surroundings, and ample opportunity for that rest and recreation without which all work becomes drudgery. Then, too, the city has a dignity to be maintained; and good order is essential to material advancement. Consequently the plan provides for impressive groupings of public buildings, and reciprocal relations among such groups."

The above quotation indicates the vision which an already great city has of its greater future.

Coming closer to Portland it is found that no city of the Pacific Coast with hope for expansion beyond present limits has failed to provide itself with a plan as a guide to growth.

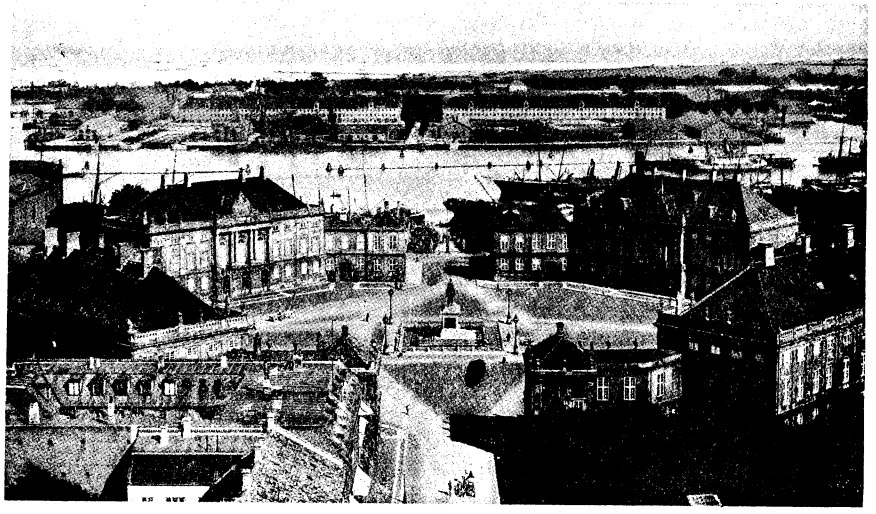
Seattle has a plan for which an initial appropriation of $49,000 was made by the city. It proposes changes more radical than will ever be necessary for Portland with its location adapted better by nature for convenience and beauty. Seattle's rapidly developing park and boulevard system promises to be the subject of national admiration.

San Francisco for years has had a plan which with the rebuilding of the city after the earthquake and the preparations for the Panama Pacific International Exposition, 1915, has been found of the utmost value in connection with projects whose cost will exceed $100,000,000.

Los Angeles has a plan which involves great and desirable improvements in park area and harbor development.

Cleveland has made an initial expenditure of $10,000,000 for a Civic Center which involves the grouping of important buildings in a scheme of momumental greatness.

Beginning with a great central station St. Louis is planning not only the creation of important transportation and other municipal



Connection between Harbor Front and Civic Center

Garden Home

centers but proposes that traffic arteries shall he broadened and extended to meet traffic needs.

Kansas City has specialized in the development of a park and boulevard system which has changed the entire character of that city. A continuous drive of more than 50 miles over beautiful ways, through exquisitely planned parks and past entrancing vistas is afforded. Energy and determination accomplished this result. It has required an expenditure of $10,000,000 but the profit to the city is estimated at five times that amount in increased values. Concerning this system the Business Men's League of Kansas City says:

"No visit to this city is complete without a drive over the boulevards and an inspection of the beautiful parks while hundreds of thousands of Kansas City people visit the parks every year. The most gratifying feature of the entire situation is this appropriation by the people of the parks and boulevards, which rightly belong to them and were established for their benefit. The poor people have their neighborhood pleasure spots—not so many as they will have later. The moderately well to do have the means to go longer distances and enjoy an afternoon on Sunday or a holiday, and the wealthy classes use the parks freely with their autos and spanking equipages. No rich citizen is so rich that he does not take pride in driving along the boulevards and none is so poor that he does not feel that a part of the splendid system belongs to him."

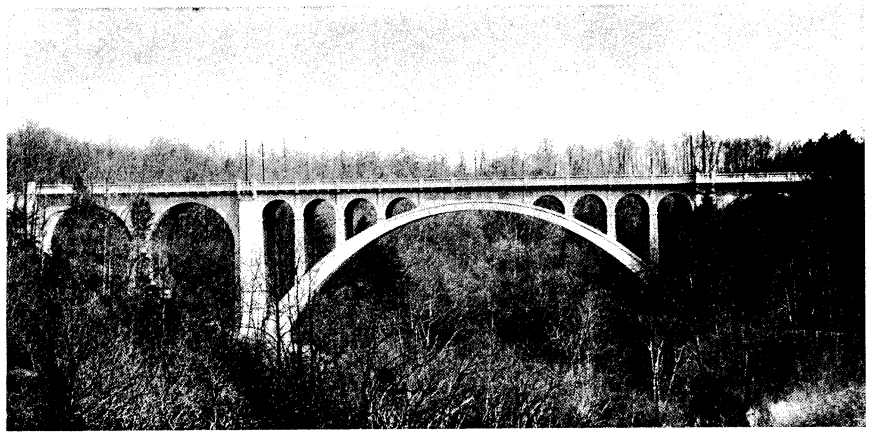
With the keenest competition between them for growth and acquiring of advantages both St. Paul and Minneapolis are engaged in plans for the future which involve in the case of Minneapolis, a plan greatly similar to that of Portland.

Some American cities have built so wrongly that they are faced not only with the necessity of building greater, but of rebuilding. The park board of Dallas admits that city to be in such condition. It says:

"A plan for the city of Dallas, such as that submitted herewith, becomes a plan, not for the building of the city, but one formulating recommendations for rebuilding along broader lines. The need for a city plan would not become evident unless the commercial and social life of the community seriously felt the hampering effects of the existing natural and artificial barriers preventing rational expansion of business and residential districts."

Some rebuilding will undoubtedly have to be done in Portland, but in the main the requirement is broadening and increasing of existing

English Garden City



A Suggested Gulch Bridge

facilities. Improvements can be planned and executed now that in the future years would require tearing down and rebuilding at a staggering cost.

The plan of San Diego involves especial attention to the development of the harbor and water front. Such attention is also vitally necessary for Portland. The San Diego report says:

"The public spirited men and women of San Diego are preparing to act in time. They realize in general what the city lacks, what it needs, and the opportunities and responsibility of the present generation."

Such realization on the part of the public spirited men and women is invited by the plan for this city.

Almost any North American city can take lessons in the matter of harbor improvement from South American cities. This is particularly true of the east coast republics. Viewing such a harbor as has been developed in Rio de Janeiro discloses possibilities which, if emulated by Portland would secure for this city a great necessity in the control of water front and harbor and the opportunity to beautify it, and would secure great expansion in its commercial possibilities. The exigencies of commerce demand an economical solution of handling and distribution of freight. The greatest commercial dominancy is secured through a combination of beauty and utility with the loss of nothing from either.

Many years lapsed during the great growth of New York while the city carelessly permitted its streets to be extended by haphazard and its public buildings to be grouped without regard to architectural harmony or worth, and without consideration of efficiency to be obtained by grouping. Now New York has wakened to its condition and is struggling to correct conditions which have produced traffic congestion, waste and extravagance. New York's harbor and water terminal plans are among the greatest and most complete in the world.

Boston is employing the best talent in the country in the beautifying of its water front, river and harbor. A plan for the parking of an island in the Charles River has been made and approved which is much like the plan which Mayor A. G. Rushlight has for Ross Island in Portland. Boston does not think its plan for greater municipal efficiency and beauty is falsely idealistic. Its people are expertly searching their purposes and plans to determine if they, in improving and building of the city, are fulfilling the trust handed down to them by their forefathers. The committe on municipal improvements of the Boston Society of Architects has this to say relative to the importance of harbor development:

"Our farmers are aware that successful agriculture demands the most modern machinery. Our mills and machine shops replace their machinery with modern types. Boston is pre-eminently a port, and

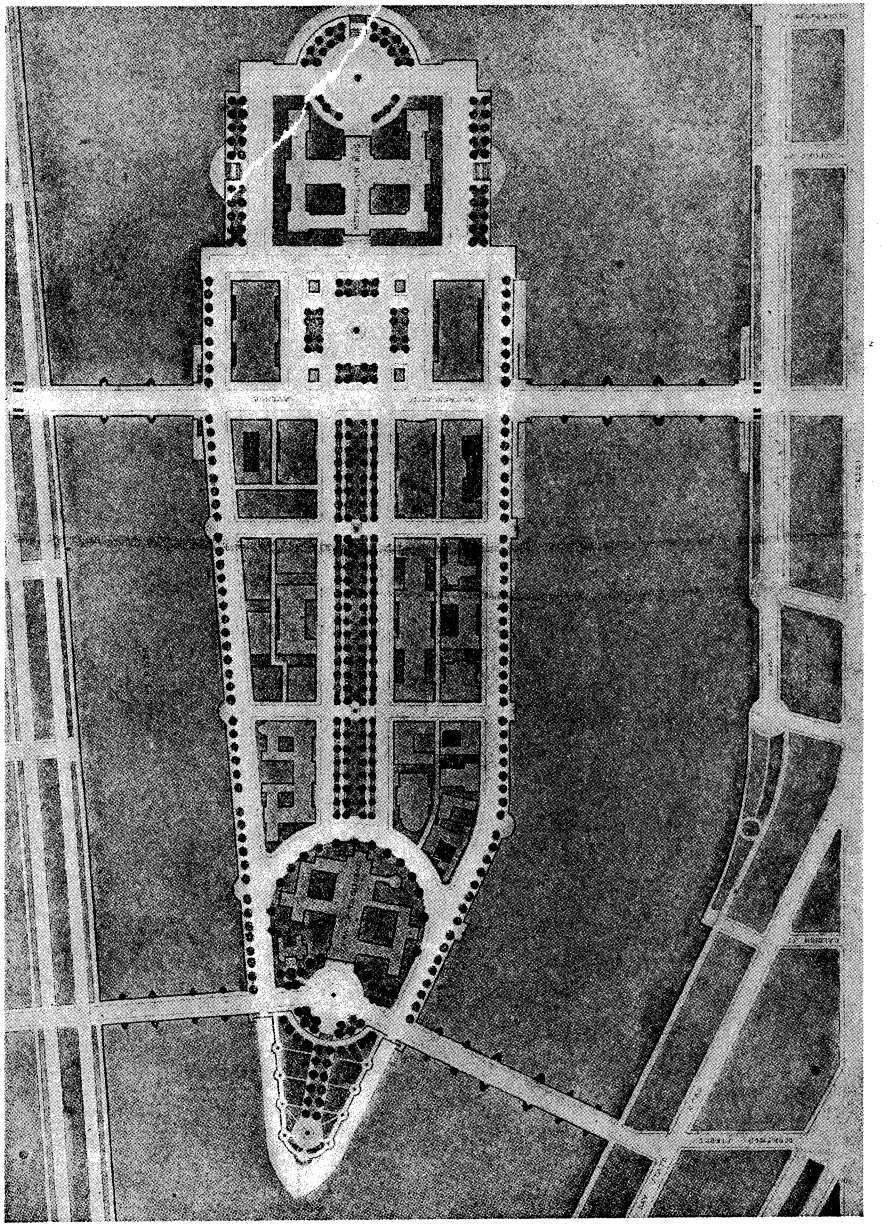
her prosperity must rise or wane not only as she breeds strong men or maintains lines of communication with the interior but also as she offers facilities for ocean commerce."

Pittsburgh is carrying out a plan to reduce the cost of living by lessening taxes through systematic improvement, on the basis that "taxes are often wasted because the improvements are made piecemeal, by patchwork with no reference to future needs. Taxes for such improvements should be made only as a part of a farsighted and comprehensive plan. Then, without waste, work done at the present will fit into the work to be done in the future."

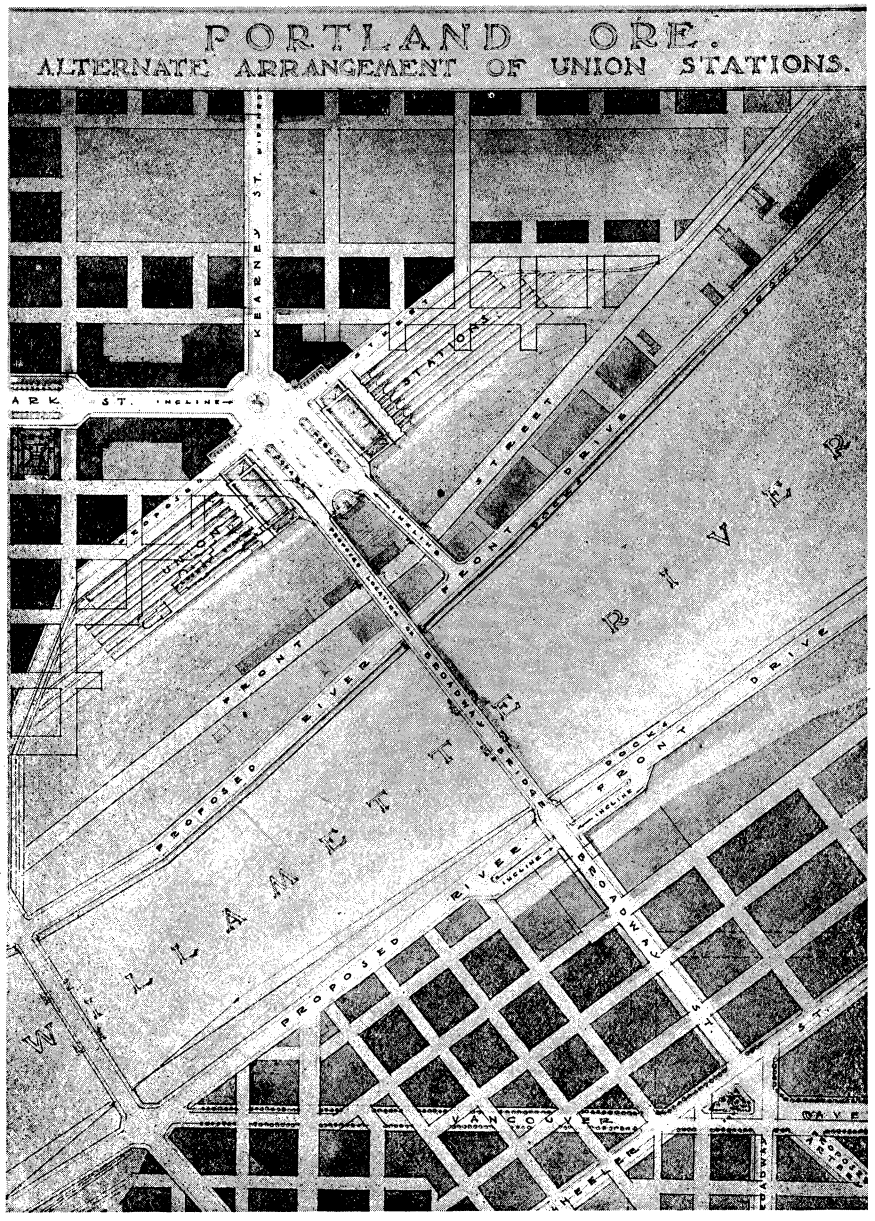
In its treatment of bridges the plan of Pittsburgh is especially noteworthy. For it is building them for attractiveness as well as efficiency. The approaches to Portland bridges should be given careful study to relieve congestion and to preserve beauty. The links between the east and west sides of the river do not have to be ugly structures. The bridges that span the gulches may be of attractive design as economical as structures that offend the eye and blot the landscape. Pittsburgh is also planning for a Civic Center on a grand scale. Its slopes, of which there are many, are being made into garden spots and this, also, is a point worthy of emulation in Portland. Our heights should be architecturally treated and plans possessing symmetry and harmony should supplant the unsightly cuts and fills.

Perhaps more question as to feasibility is directed toward the Civic Center than toward any other feature of a city plan. But Pittsburgh and Philadelphia, Washington and Cleveland, Rochester and Denver are boldly planning for the creation of civic centers on a scale that awakens admiration. Philadelphia proposes the cutting of a wide thoroughfare through solidly built blocks in order to furnish access to its civic center. Rochester has been called upon to rebuild entirely the center of the city. Other cities have discovered by study errors in original platting and are proceeding bravely about the work of reconstruction. Portland has already made a beginning toward transportation, recreation and civic centers and needs more to follow a plan in inevitable expansion than to make radical changes.

But a comparatively few of the cities of the United States engaged in city planning have been mentioned. There are many others. Detroit is considering radical changes. Cincinnati has a general plan. Buffalo is constructing a great union station consistent with a general



Parking Planned for Island in Charles River at Boston



Alternate Arrangements of Union Stations, Portland

plan. Madison and La Crosse, Wisconsin, have plans. Wilmington, Delaware, is developing an extensive park plan. Southern cities, such as Columbia and Greenwich, Chattanooga and Savannah have been awakened to the importance of city planning, as have Harrisburg, Pa., Utica, Jamestown and other of the smaller New York towns. Whether small or large the value of adhering to a balanced plan that will result in the City Practical—the City Beautiful, is being definitely realized by the cities.

These days of slumberous patriotism need something tangible to stimulate the citizens' pride. Architectural harmony and grandeur for ages have been the expression of the national soul.

And while the cities of this country are bestirring themselves more actively than ever before in the history of the nation in putting forward and approving plans for expansion, the cities of Europe are even more active. Some of the plans for foreign cities by their magnitude and grandeur and thoughtlessness of expense are enough to daze the American mind.

In England and Germany especial attention is being given to housing conditions. Both of these nations became alarmed by the fact their soldiery was fast becoming weakened by inferior physical make-up of the ranks. They have found the cause in the cities' congestion. Where this congestion has been relieved immediate improvement has been very noticeable. It has resulted in the Garden home plan which some of the towns of this country are borrowing.

The motive of the Garden Home lies deeper, however, than the production of efficient soldiery. Captains of industry have realized the commercial value of contented and healthy employees. Port Sunlight in England is one of the most conspicuous examples of the value of fresh air and sunlight and attractive surroundings in the lessening of death rate, increase of health and contentment, and the elevating of ideals.

Port Sunlight is an English industrial village made into a garden city. The death rate is but 4.2 per 1000, the infant mortality but 66 per 1000 as contrasted with the rate of 140 per 1000 in the nearby London tenement district. And yet the workmen in this town live for one-fourth the usual American rental!

The lesson of the garden city is applicable to the suburbs of Portland. They should always be provided with room for sunlight and

air and charming surroundings. The cost is no greater. The efficiency of the citizenship of the people who live therein is vastly increased.

It is noticeable that the famous cities of Europe have made themselves such by the breadth and quality of their planning. Paris, leader of the world in beauty was redeemed from squalor and neglect to be the rendezvous of the world's beauty lovers, who while they admire the art treasures leave millions of their money in the frugal French pockets. Paris was not made a world center by accident. Neither can unusual location and natural advantages alone make Portland the metropolis great and beautiful.

London is spending millions in conformity with a plan. Such ancient cities as Naples, Athens and Rome are being rejuvenated through modern plans of improvement by which the beauty of ages gone is even more attractively presented than before. Hamburg, Vienna, Berlin, Rotterdam, Glasgow and many others are meeting modern competition by reconstruction and development costing many millions of dollars, yet found the most profitable of investment. A readiness to widen streets to meet traffic needs is another European characteristic. Those who are concerned in the street widenings proposed by the Greater Portland Plan will be interested in the following table of the widths of important European city streets:

Avenue des Champs Elysees, Paris	230 feet
Reeperbahn, Hamburg	210 feet
Unter den Linden, Berlin	190 feet
Ring-strasse, Vienna	185 feet
Belle Alliance Strasse, Berlin	160 feet
Whitehall, London	120-145 feet

The streets in Portland running east and west are 60 feet wide; those running north and south 80 feet wide. There are intersections every 200 feet. These, it may be repeated, cause traffic congestion which widening relieves.

European cities, also, are giving study to the relation between the heights of buildings and the widths of streets. Uniformity in height is as necessary to architectural harmony as proper grouping. At the same time all buildings are given equal opportunity for air and light. It has been recommended in London that no building less than 40 feet or more than 60 feet high be permitted on a street 40 to 60 feet in width. It is recommended that streets of 60 to 80 feet have buildings 67 to 90 feet in height and for streets of 80 to 100 feet, buildings 100 to 125 feet. For streets outside the central area it has been recommended that buildings be made as high as the streets are wide, with the height decreasing as the borders of the city are approached.

Those cities that have provided "front doors" of character and size befitting the dignity and prestige of the community have materially benefited. One of these front doors is the Union station; another is the harbor landing. The Greater Portland Plan proposes a suitable Union depot facing upon the Park Blocks with a vista that will not fail to charm the eye and excite the admiration of all visitors while the location would secure also a great traffic efficiency. For the river there should be a majestic public landing, that could be continuously used by craft of every sort, and that would serve as a dignified place of entrance into the city for Rex Oregonus at the time of the Rose Festival. If Portland's pageants are to attract the world, their accessories must be things of beauty. Losing the opportunity of developing the river banks exposes the city to the ravages of floods, fire, rats and pestilence. Availing the opportunity means the securing of a harbor of great capacity, beautiful with its parked islands, uniform frontage and river-side drives.

When other cities are planning so largely and executing their plans so splendidly both abroad and in this country it should not require exceptional courage on the part of Portland citizens to enter with energy and enthusiasm into the realizing of a plan that promises so much of good from the very beginning. An extract from a declaration by the Civic Club of New York reads:

"We stand for knowledge and progress; for rational enjoyment and for whatever is right.

"No man can grow unless he has room in which to grow; we will not crowd the next man, neither will we be crowded by him. We will therefore give and take, but we will not compromise or temporize with wrong or with wrong doers. We will leave hiding places to the weak and will fight for them and for ourselves in full view of all. We will cultivate friendship with all but we will not fear the enmity of those who oppose our principles."

Oregonian Building

New Journal Building

SEMI-ANNUAL REPORT OF A. L. BARBUR, AUDITOR OF THE CITY OF PORTLAND, FOR THE HALF YEAR ENDING JUNE 30, 1912

		Balance Dec. 31, 1911	Received by Transfer	Receipts	Disbursements	Disbursed by Transfer	Balance June 30, 1912	Warrants Outstanding Dec. 31, 1911	Warrants Drawn	Warrants Paid	Warrants Outstanding June 30, 1912	Warrants Canceled
1	General Fund	483965.59	1522.87	579117.15	275165.52	356742.23	432697.86	8674.29	273518.34	273715.52	8357.11	120.00
2	Fire Dept Fund	167914.76		556552.24	245470.04		478996.96	3119.98	243430.83	245470.04	1080.77	
3	Police Dept Fund	34573.90	20000	357471.77	174954.47		237091.20	898.32	174829.08	174954.47	521.42	251.51
4	Bonded Indebtedness Interest Fund	41934.84	64540.00	283401.44	118724.25	50700.00	220452.03		64.25	64.25		
5	Chemical Ntl Bank of New York	12800.00	16700.00		12775.00		16725.00					
6	Chase National Bank of New York	20390.00	1500.00		1590.00	20000.00	300.00					
7	Harris, Forbes & Co of New York	330.00	7500.00		7620.00		210.00					
8	National Park Bank of New York	17500.00	25000.00		5960.00	36540.00						
9	Lighting Fund	15453.90	14500 00	141752.72	81784.41		89922.21		81784.41	81784.41		
10	Street Repair Fund	39488.44		94994.81	68556.57		65926.68	898.25	68048.44	68556.57	390.12	
11	Public Library Fund	1671.97		51362.62	48360.77		4673.82	1671.97	46688.80	48360.77		
12	Park Fund	53443.80		126339.31	48875.54		130907.57	243.21	48695.42	48875.54	63.09	
13	Special Bridge Fund	33355.87		25662.69	725.24		58293.32		725.24	725.24		
14	Sinking Fund	14372.61		104923.88			119296.49					
15	Street Cleaning and Sprinkling Fund		180000.00	17861.74	124340.62		73521.12		124531.67	124340.62	191.05	
16	Water Fund	228030.08		850582.94	613730.37	192500.00	272382.65	44748.00	582073.93	613730.37	12125.06	966.50
17	Water Bond Interest Fund	1050.00	185000.00		102310.00	500.00	83240.00					
18	Water Bond Sinking Fund	99.21					99.21					
19	Police and Fire Dept Relief Fund	2130.07		2658.70	2593.59		2195.18	55.41	2714.92	2593.59	176.74	
20	Redemption Fund	2335.46		15852.33	17369.97		817.82	2335.30	15864.27	17369.97	817.66	11.94
21	Water Fund, Bond Account	36.20					36.20	36.20			36.20	
22	Park and Boulevard Fund	134816.46			66854.45		67962.01	213.86	66643.09	66854.45	2.50	
23	Hawthorne Ave Bridge Fund	3763.45			870.94		2892.51		870.94	870.94		
24	Broadway Bridge Fund	650114.43			281847.24		368267.19		281970.04	281847.24	122.80	
25	Fire Boat and Fire Mains Fund	111660.06			15957.19		95702.87	160.00	15797.19	15957.19		
26	Garbage Crematory Fund	6353.40			131.25		6222.15		131.25	131.25		
27	Municipal Jail Fund			191278.40	35191.50		156086.90		35191.50	35191.50		
a28	Fund for Repairs to Streets and Bridges	31.98		.20	.20	31.98			.20	.20		
29	Bill Posting Badge Fund	155.00		18.00	6.00		167.00					
30	Mt Hood Ry. & Power Co Deposit Fd.	5000.00					5000.00					
b31	Mt. Hood Ry. & power Co. St. Repr. Fd	1000.00					1000.00					
c32	Portland Ry. & Power Co. Deposit Fund	1000.00			1000.00			1000.00		1000.00		
33	Street Improvement Funds	132854.95	4310.64	3105161.17	3100973.48	1303.69	140049.59	1560347.62	2466823.00	3100973.48	829406.17	96790.97
34	Sewer Funds	24297.71	1742.25	288501.15	294949.96	645.41	18945.74	280678.39	116194.10	294949.96	71364.73	30557.80
35	Street Extension Funds	141862.60		38099.84	74452.05		105510.39	127146.00	45197.92	74452.05	97615.37	276.50
36	Water Main Funds	7049.99		625.50	2659.94		5015.55	12783.57		2659.94	7691.52	2432.11
37	Street Sewer Interest Fund	3323.75	21000.23	17969.42	33765.12		8528.28	.80	10.24	10.24	.80	
38	Improvement Fund	7183.13				7183.13						
39	Improvement Bond Sinking Fund	721842.95	8078.27	587383.81	557360.47	23.40	759921.16	2:21	201365.96	201298.17	70.00	
40	Improvement Bond Interest Fund	52343.61	115000.00	203155.97	291851.69	224.42	78423.47	4.97	1222.59	1190.33	37.23	
41	Bonded Indebtedness Sinking Fund	259.02		86.34			345.36					
	Total	3175789.19	666394.26	7640814.14	6708777.84	666394.26	4107825.49	2045018.35	4894387.62	5777928.30	1030070.34	131407.33

a Warrant for 20c over six years old canceled and through error was cashed by Treasurer's Office.

b Amount deposited as guarantee that streets disturbed in constructing conduits will be properly replaced.

c Amount deposited as guarantee that streets disturbed in constructing underground conduits will be properly replaced.

History and Statistics of the City of Portland

By A. L. BARBUR, Auditor City of Portland

1843 The city was founded by Wm. Overton and was named by F. W. Pettygrove after his native town of Portland, Maine.

1844 Hon. A. L. Lovejoy and F. W. Pettygrove constructed the first log cabin near foot of Washington Street.

1847 Dr. Ralph Wilcox conducted the first school in a house at the foot of Taylor Street.

1849 First saw mill constructed at foot of Jefferson Street by W. P. Abrams, Cyrus A. Reed and Stephen Coffin.

1850 First church was erected at Third and Taylor Streets of Methodist denomination.

1850 "The Oregonian's" first issue was published December 4th, as a weekly paper.

1850 Lot Whitcomb launched and operated first steamboat from Milwaukie to Astoria (fare $15.00).

1851 In April of this year the first city election was held, there being two hundred and twenty-two votes cast. Officials elected were:

Mayor, Hugh D. O'Bryant.
Recorder, W. S. Caldwell.
Councilmen, Robert Thompson, Shubrick Norris, George A. Barnes, Thos. G. Robinson, L. B. Hastings.

Following is a list of the Mayors of Portland from 1851 to date:

1851	Hugh D. O'Bryant	1863-4	David Logan
1852	A. C. Bonnell, to November	1864-5	Henry Failing
1852	S. B. Marye, elected in Nov.	1865-6	Henry Failing
1853	Josiah Failing	1866-7	Thos. J. Holmes
1854	W. S. Ladd	1867-8	J. A. Chapman
1855	George W. Vaughn	1868-9	Hamilton Boyd
1856-7	James O'Neill	1869-70	B. Goldsmith
1858	L. M. Starr	1870-71	B. Goldsmith
1859	S. J. McCormick	1871-2	Phillip Wasserman
1860	George C. Robbins	1872-3	Phillip Wasserman
1861	J. M. Breck	1873-4	Henry Failing
1862-3	W. H. Farrar	1874-5	Henry Failing
1875-6	J. A. Chapman	1888-9	Van B. DeLashmutt
1876-7	J. A. Chapman	1889-90	Van B. DeLashmutt
1877-8	W. S. Newberry	1891	W. S. Mason
1878-9	W. S. Newberry	1894	Geo. P. Frank
1879-80	D. P. Thompson	1896	Sylvester Pennoyer
1880-81	D. P. Thompson	1898	W. S. Mason
1881-2	D. P. Thompson	1899	W. A. Storey
1882-3	J. A. Chapman	1900	H. S. Rowe
1883-4	J. A. Chapman	1902	George H. Williams
1884-5	J. A. Chapman	1905	Harry Lane
1885-6	John Gates	1907	Harry Lane
1886-7	John Gates	1909	Joseph Simon
1887-8	John Gates	1911	A. G. Rushlight

At the regular election held in June, 1911, the following officials were elected:

Mayor, A. G. Rushlight.
Auditor, A. L. Barbur.
Treasurer, Wm. Adams.
City Attorney, Frank S. Grant.
Municipal Judge, George Tazwell.

Councilmen First Ward, Tom N. Monks; Second Ward, H. W. Wallace; Third Ward, Geo. D. Dunning; Fourth Ward, F. S. Wilhelm; Fifth Ward, Frank E. Watkins; Sixth Ward, John Montag; Seventh Ward, Allan R. Joy; Eight Ward, Wm. Schmeer; Ninth Ward, R. E. Menefee; Tenth Ward, James Maguire; and Councilmen at large were: Geo. L. Baker, John H. Burgard, Ralph C. Clyde, Will H. Daly and J. J. Jennings.

There were 28006 votes cast at this election.

1851 The first drug store was established by Geo. W. Snell and Dr. J. C. Hooper and later developed into the wholesale firm of Snell, Heitshu and Woodard.

1852 During this year Portland became prominent as a fruit center, as much fruit was shipped.

1853 First brick building was built by W. S. Ladd at 103 Front Street.

The assessed valuation of real and personal property was:

1854	$ 1,195,034	1876	12,113,255
1861	2,089,420	1906	131,197,559
1870	6,848,568	1912	296,199,230

The population also shows a steady increase as follows:

1857	1,280	1880	21,600
1860	2,917	1885	26,799
1866	6,508	1900	90,426
1870	13,470	1910	207,214
1876	15,099	1912 estimated	250,000

1857 First Sash and Door factory erected at the foot of Jefferson Street by J. C. Carson.

1859 First Banking House was established by Wm. S. Ladd and C. E. Tilton under the firm name of Ladd & Tilton and the bank still carries the firm name.

1867 First Court House erected at Fourth and Salmon, Main and Fifth Streets and stood until 1910 when it was torn down to make room for our present modern Court House costing $1,500,-000 now nearing completion.

1872 First street car track was laid on First Street from Union Depot to Jefferson Street. In 1888 there were 17.45 miles of street car track and in 1912 there are 272.284 miles.

1873 The first large fire burned from Morrison to Clay Street and from Second Street to the river, August 2nd.

1878 First telephone installed in the printing office of Geo. H. Himes at No. 5 Washington Street.

1883 Commenced construction of "Hotel Portland"—cost $750,000.

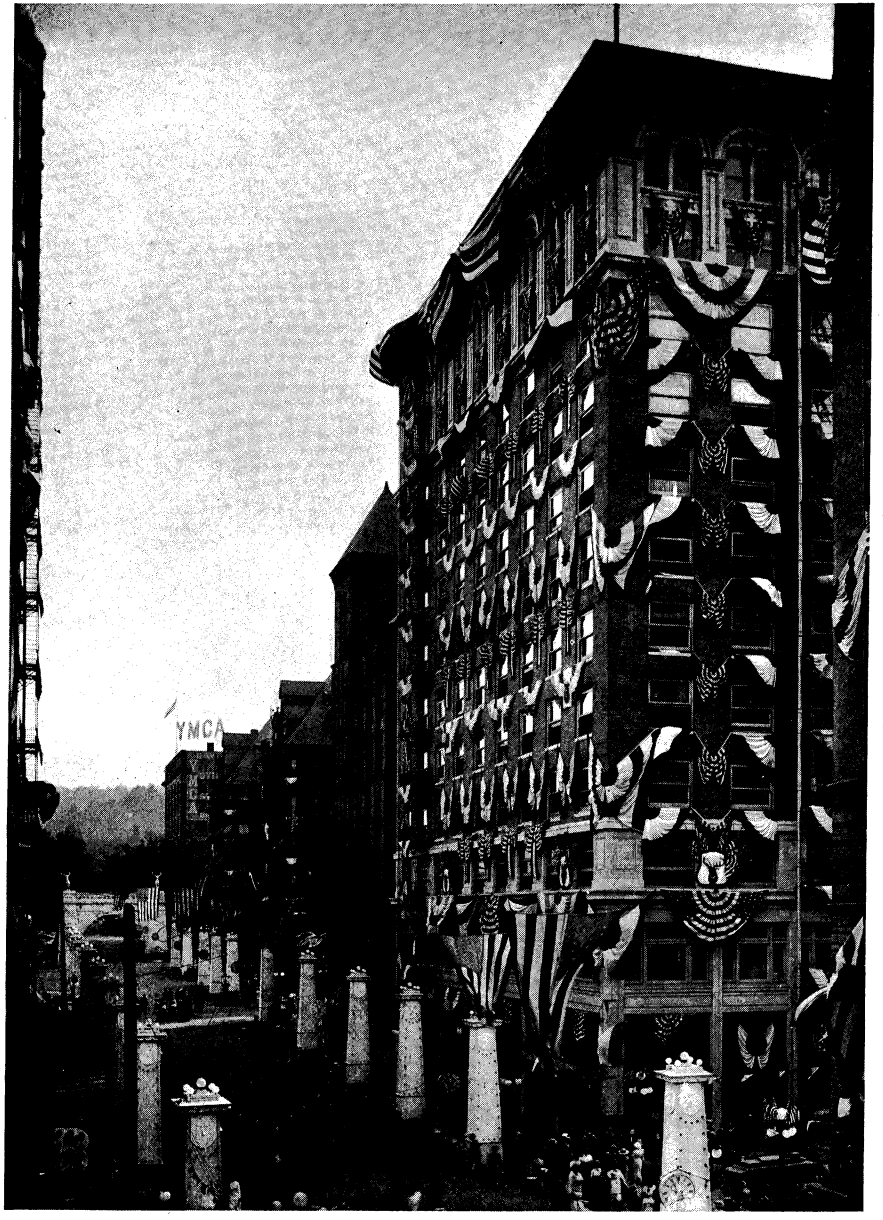
1883 September 12th, the celebration of the completion of the Northern Pacific Railroad into Portland.

1887 First steel bridge across the Willamette River—cost $1,000,000.

1888 North Pacific Industrial Exposition erected—cost $150,000.

In 1885 there were 52.5 miles of improved streets and in 1912 there are 557 miles, showing a substantial increase

When the regular Police force was inaugurated in 1872 there were three officers and fourteen patrolmen; in 1912 there are forty officers and two hundred and forty-nine patrolmen.



Sixth Street, during the Elks Re-union

In 1882 the regular paid Fire Department was organized consisting of eighty officers and firemen.

In 1912 there are sixty-six officers and two hundred and ninety-one firemen

During July 1912 the employees in the various City departments were as follows:

Mayor's office	2	Janitor's department	13
Auditor's office	32	Sealer of weights and measures	2
Engineer's department	204	Free employment bureau	2
Health department	21	Tel. exchange operator	1
Garbage creamtory	21	Street repair department	76
Pound department	4	Park department	122
Treasurer's office	9	Water department	486
Attorney's office	10	Fire department	357
Councilmen	15	Police department	289
Civil Service commission	2	Street cleaning and sprinkling dept.	216
Building's Inspector's dept	21		
Municipal court	3	Total employees	1915
Plumbing Inspector's dept	7		

Following is a list of Parks and Play-grounds in the City:

Brooklyn Playground	1.07 acres	Mt. Tabor Park	176. "
Chapman & Lownsdale Sqs.	1.8 "	North Parkway	2.5 "
City Park	103.78 "	Peninsular Park	17.4 "
Columbia Park	29.46 "	Sellwood Park	15.65 "
Forestry Building	2. "	Seventh St. Playground	1. "
Fulton Park	30. "	South Parkway	5. "
Governor's Park	6. "	Terwilliger Park	5.2 "
Hillside Parkway	75. "	Laurelhurst	30.322 "
Holladay Park	5. "	Sellwood Playground	.88 "
Kenilworth Park	9. "	Patton	1.33 "
Ladd Park	1.5 "	Burrage Tract	1.06 "
Lincoln Park	2. "	Firland	.909 "
Macleay Park	130.02 "		
Rose City Playground	.5 "	Total	654.381

Street Railway

No. of miles car track operated 272.284
No. of passengers carried during 1911 87,050,000
No. tons of freight carried 69,729

Fare charged is five cents with transfer privileges to any part of city and eight tickets for twenty-five cents for school children.

Steam Railroads

There were 168,152 passenger cars and 248,892 freight cars handled during 1911.

Street Improvements

In 1885 there were 52.5 miles of improved streets.

Hard surface in place January 1, 1912 ..... 223 miles
Other improved streets in place January 1, 1912 .. 334 miles

Total improved streets 557 miles
Total unimproved streets 578 miles

Total streets in city 1135 miles
Total land area in city ..... 49.55 sq. miles
Total water area in city ..... 2.29 sq. miles

Total area of city ..... 51.84 sq. miles

Sewer Improvements

In 1885 there were 15.5 miles of sewers.

January 1, 1912 there were 372 miles of sewers—which shows a substantial increase.

Street Lighting

Portland is second to no city in the world in the matter of street lighting.

There were 2124 arc lights January 1st, 1912, and since then there were 359 lights installed, making a total of 2483 arc lights in place July 1, 1912.

The City has a contract for five years with the Portland Railway Light and Power Co., which provides that the city pays $56 per year per arc for lights fed by overhead wires and $75 per year per arc for lights fed by underground conduits.

The expense of lighting the City streets during the year 1911 was $133,831.79 and for the year 1912 will be approximately $170,346.12.

City Government

The power and authority given to the municipal corporation of the City of Portland is vested in a Mayor, Council and Executive Board and such other boards, bodies and officers as the Mayor may appoint.

The elective officers are the Mayor, Auditor, Treasurer, Municipal Judge, City Attorney and fifteen Councilmen who shall be officers of the City of Portland.

General elections shall be held the first Monday in June, 1905, and the first Monday in June biennially thereafter. All elective officers are to hold office for two years except Councilmen, who shall hold office for the term of four years.

The Executive Board, Health Board, Water Board, Park Board and Civil Service Commission are appointed by the Mayor. The Mayor is Chairman of all Boards.

The members of the various Boards and Committees are as follows:

Mayor.....A. G. Rushlight
Auditor.....A. L. Barbur
Treasurer.....Wm. Adams
City Attorney.....Frank S. Grant
City Engineer.....T. M. Hurlburt
Municipal Judge.....Geo. J. Tazwell
Chief of Police.....E. A. Slover
Sealer Weights and Meas..F. G. Butchel
Supt. of Street Cleaning and Sprinkling Dept.....Alexander Donaldson
Inspector of Plumbing and Drainage Wm. Hey
Building Inspector.....H. E. Plummer
Health Officer.....Dr. C. H. Wheeler
Market Inspector.....Sarah Evans
Market Inspector.....J. F. Singer
Harbormaster.....Capt. J. Speier
Chief of Fire Department..Frank Dowell

Standing Committees of the Council

Ways and Means

Meets at 2 o'clock p. m. Wednesday—Preceding Council Week.

H. W. Wallace—R. E. Menefee—W. H. Daly—James Maguire—John H. Burgard.

Accounts and Current Expenses

Meets at 2 o'clock p. m. Thursday—Preceding Council Week.

R. C. Clyde—Geo. D Dunning—Tom N. Monks.

Street Cleaning and Sprinkling

Meets at 4:30 o'clock p. m. Monday—Council Week.

James Maguire—John H. Burgard—Frank E. Watkins—F. S. Wilhelm—Allan R. Joy.

Streets

Meets at 2 o'clock p. m. Friday—Preceding Council Week.

Geo. L. Baker—Tom N. Monks—Geo. D. Dunning—Allan R. Joy—W. M. Schmeer—James Maguire—John H. Burgard.

Sewer and Drainage

Meets at 10 o'clock a. m Friday—Preceding Council Week.

R. E. Menefee—J. J. Jennings—H. W. Wallace—R. C. Clyde—John Montag F. S. Wilhelm—W. H. Daly.

Parks and Public Property

Meets at 10 o'clock a. m. Monday—Council Week.

John Montag—Geo. L. Baker—Wm. Schmeer.

Health and Police

Meets at 11 o'clock a. m. Friday—Preceding Council Week.

J. J. Jennings—Frank E. Watkins—James Maguire—H. W. Wallace—Tom N. Monks.

Judiciary and Elections

Meets at 1:30 o'clock p. m. Thursday—Preceding Council Week.

Allan R. Joy—F. S. Wilhelm—J. J. Jennings.

Street Lighting

Meets at 4 o'clock p. m. Thursday—Preceding Council Week.

Wm. Schmeer—J. J. Jennings—John H. Burgard—Geo. D. Dunning—R. E. Menefee.

Licenses

Meets at 2 o'clock p. m. Thursday—Preceding Council Week.

W. H. Daly— Geo. D. Dunning— R. C. Clyde—Wm. Schmeer—Tom N. Monks.

Commerce, Landings and Wharves

Meets at 4:30 o'clock p. m. Thursday—Preceding Council Week.

F. S. Wilhelm—Tom N. Momks—Frank E. Watkins.

Liquor License

Meets at 3 o'clock p. m. Thursday—Preceding Council Week.

Frank E. Watkins—H. W. Wallace—W. H. Daly—Allan R. Joy—R. E. Menefree—John Montag—R. C. Clyde

Committee on Industry

Meets at 11 a. m. Monday—Council Week.

Geo. L. Baker—John H. Burgard—H. W. Wallace—James Maguire—J. J. Jennings.

Regular Meetings of the Council on second and fourth Wednesdays of each month at 9:30 o'clock a. m.

Committees of the Executive Board

Rules and Order of Business

Meets 3:30 p. m. Friday Board Meeting Day.

D. Solis Cohen—Waldemar Seton—Geo. Hornby.

Fire

Meets 4 p. m. Thursday preceding Board Meeting Day.

D. Solis Cohen—John Perry—H. C. Fixott.

Police

Meets 4 p. m. Thursday preceding Board Meeting Day.

John B. Coffey—Waldemar Seton—W. H. Fitzgersald.

Bridges

Meets 3 p. m. Thursday preceding Board Meeting Day.

R. O. Rector—D. S. Cohen—John B. Coffey.

Streets

Meets 3. p m. Thursday following Board Meeting Day.

W. H. Fitzgerald—R. O. Rector—K. K. Kubli.

Sewers

Meets 3 p. m. Thursday preceding Board Meeting Day.

John Perry—John B. Coffey—H. C. Fixott.

Street Cleaning

Meets 3 p. m. Thursday preceding Board Meeting Day.
Waldemar Seton—Geo. Hornby—M. J. Murnane.

Lights

Meets 3 0. m. Board Meeting Day.
M. J. Murnane—W. H. Fitzgerald—H. C. Fixott.

City Hall

Meets 3:30 p. m. Thursday preceding Board Meeting Day.
Geo. Hornby— R. O. Rector—K. K. Kubli.

Current Expenses

Meets 3:30 p. m. Board Meeting Day.
K. K. Kubli—John Perry—M. J. Murnane.
Executive Board meets on the Fridays following the second and fourth Wednesdays of each month.

Board of Health

Meets first day of each month at 10:00 a. m.
A. G. Rushlight, Mayor, Chairman—Dr. R. J. Chipman—Dr. Geo. B. Story—Dr. Alan Welch Smith—E. A. Slover Acting Chief of Police—Dr. C. H. Wheeler, Health Officer.

Park Board

Meets first day of each month at 2:00 p. m.
A. G. Rushlight, Mayor, Chairman—Ion Lewis—Dr. E. G. Clark—Carl Stoll—E. T. Mitsche, Park Keeper.

Water Board

Meets second Tuesday in each month at 4 p. m.
A. G. Rushlight, Mayor, Chairman—Theo. B. Wilcox—J. C. Ainsworth—Walter B. Mackay—Frank W. Winn.

Auditorium Commission

Theo. B. Wilcox, Chairman—W. D. Fenton—Hugh Hume—Phil Metschan, Jr.—J. R. Wetherbee.

Civil Service Commission

P. L. Willis—John F. Logan—A. P. Armstrong.

Dock Commission

F. W. Mulkey, Chairman—C. B. Moores—Geo. M. Cornwall—Ben Selling—Dan Kellaher.

Board of Appeal—Building Code

R. P. Effinger—Geo. C. Mason—E. F. Lawrence.

Board of Auto Registry

Dr. C. B. Brown—L. Therkelsen, Jr.—Dr. H. W. Hegele.

Free Employment Board

R. C. Clyde, President—J. L. Ledwidge, Secretary—W. H. McMonies.
Meets at 1:00 o'clock Thursday preceding Council at the City Hall.

Bonds Held as Sinking Fund Investments

Water Bond Sinking Fund	(In custody of water brd.)		$414,000.00
Imp. Bond Sinking Fund	(In custody of City	Treas.)	910,470.02
Police and Fire Dept Relief Fund	"	"	13,500.00
Lighting Fund	"	"	9,000.00
Sinking Fund	"	"	88,000.00
Bonded Indebtedness Sinking Fund	"	"	2,878.02

Tax Levy	1911		1912	
Fire Dept. Fund	2.05	mills	2.16	mills
Police Dept. Fund	1.15	"	1.39	"
Bonded Indebtedness Interest Fund	1.00	"	1.07	"
Lighting Fund	.50	"	.55	"
Street Repair Fund	.40	"	.30	"
Public Library Fund	.15	"	.20	"
Park Fund	.45	"	.49	"
Special Bridge Fund	.05	"	.10	"
Sinking Fund	.25	"	.40	"
Street Cleaning and Sprinkling Fund			.07	"
Public Docks			.07	"
	6.00	"	6.80	"

Bonded Indebtedness

General Indebtedness	11,994,500.00
Improvement Bonds	12,557,369.46

WELLS & CO. PRINTERS PORTLAND ORE.